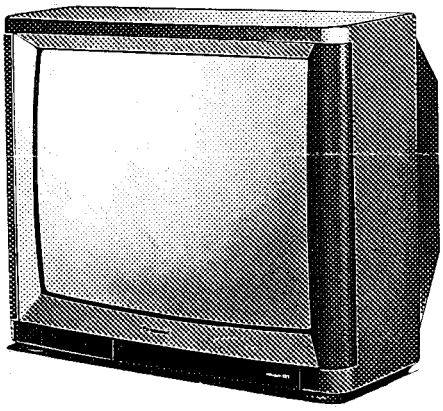
ORDER No. SM 90001

Service Manual



Colour Television

TX-28A1DT
TX-24A1DT
ALPHA-2 Chassis

Specifications (information in brackets refers to TX-24A1DT)

Specifications

Power Source:	220 V AC, 50 Hz
Power Consumption:	150 Watt
Aerial Impedance:	75 Ω unbalanced, Coaxial Type
Receiving System:	PAL-B, G,I SECAM-B,G,L
Receiving Channels:	VHF E2-E12 UHF E21-E69 CATV S1-S20
Intermediate Frequency:	Video 38.9 MHz Sound 33.4 MHz Colour 34.47 MHz (PAL) 34.5 MHz (SECAM) 34.65 MHz (SECAM)
Video/Audio Terminals:	
AV1/21 pin IN	Video 1 Vp-p 75 Ω Audio 0.67 Vrms, 10k Ω
AV1/21 pin OUT	Video 1 Vp-p 75 Ω Audio 0.67 Vrms (100 % modulation) 1k Ω
AV2 S-VHS IN	Luminance 1 Vp-p 75 Ω Chrominance 0.3 Vp-p 75 Ω
AV2/21 pin IN	Video 1 Vp-p 75 Ω Audio 0.67 Vrms, 10k Ω
AV2/21 pin OUT	Video 1 Vp-p 10k Ω Audio 0.67 Vrms (100 % modulation) 1k Ω
AV3 IN	Video (BNC) 1 Vp-p 75 Ω Audio (RCA) 0.67 Vrms 1k Ω
High Voltage:	27.7 kV at zero beam current
Picture Tube:	28 inches (24 inches) measured diagonally, 110° deflection
Audio Output:	
Internal Speaker:	2 x 10 W (Music Power) 8 Ω Impedance
External Speaker:	2 x 20 W (Music Power) 4 Ω Impedance
Headphones:	1 : 8 Ω Impedance
Speakers:	2 ,10cm, round Type 2 ,7.5x4.5cm oval Type
Accessories supplied:	Remote Controller UM4 Battery
Dimensions:	Height: 572(522)mm Width: 686(628)mm Depth: 489(460)mm
Net Weight:	39kg (33kg)

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

Technische Daten (Werte in Klammern gelten nur fur TX-24A1DT)

Technische Daten

Netzpannung:	220 V AC, 50 Hz
Leistungsaufnahme:	150 W
Antennenimpedanz:	75 Ω asymmetrisch, Koaxial-Typ
Empfangssystem:	PAL - B,G,I SECAM-B,G,L
Empfangsbereiche:	VHF E2 - E12 UHF E21-E69 CATV S1-S20
Zwischenfrequenz:	Bild 38,9 MHz Ton 33,4 MHz Farbe 34,47 MHz(PAL) 34.5 MHz (SECAM) 34,65 MHz(SECAM)
Video/Audio Anschüsse:	
AV1/21-poliger Eingang	Video 1 Vs-s 75 Ω Audio 0.67 Vrms, 10k Ω
AV1/21 pin-poliger Ausgang	Video 1 Vs-s 75 Ω Audio 0.67 Vrms (100 % modulation) 1k Ω
AV2 S-VHS Eingang	Leuchtdichte 1 Vs-s 75 Ω Chrominanz 0.3 Vs-s, 75 Ω
AV2/21-poliger Eingang	Video 1 Vs-s 75 Ω Audio 0.67 Vrms, 10k Ω
AV2/21 pin-poliger Ausgang	Video 1 Vs-s 10k Ω Audio 0.67 Vrms (100 % modulation) 1k Ω
AV3 Eingang	Video (BNC) 1 Vs-s 75 Ω Audio (RCA) 0.67 Vrms, 1 KΩ
Hochspannung:	27.7 kV bei Nullstrahlstom
Bildröhre :	70cm (63cm) Diagonale, 110° Ablenkung
Ton Ausgangsleistung:	
Einbaulautsprecher:	2 x 10 W (Musikleistung) 8 Ω Impedanz
Zusatz-Lautsprecherboxen:	2 x 20 W (Musikleistung) 4 Ω Impedanz
Kopfhörer:	1 : 8 Ω Impedanz
Lautsprecher:	2, 10cm, rund type 2, 7.5x4.5cm oval type
Mitgeliefertes Zubehör:	Fernbedienung UM4 Batterien
Abmessungen:	Höhe: 572(522)mm Breite: 686(628)mm Tiefe: 489(460)mm
Gewicht:	39kg (33kg)

Änderungen der technischen Daten vorbehalten.
Gewichte und Abmessungen sind Näherungsangaben.

Panasonic

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SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields and isolation R-C combinations are properly installed.
4. When the receiver is not to be used for a long period of time, unplug the power cord from the AC outlet.
5. Potential, as high as 29.0 kV, is present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not throughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture tube to the receiver chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Turn on the receiver's power switch.
3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screwheads, aerials, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis, the reading must be infinite.

SICHERHEITS-VORKEHRUNGEN

ALLGEMEINE RICHTLINIEN

1. Es ist empfehlenswert, einen Trenntransformator in die Stromversorgung zu schalten, bevor Reparaturen an einem Gerät vorgenommen werden, dessen Chassis unter Spannung steht.
2. Bei der Durchführung von Servicearbeiten dürfen die ursprünglichen Kabelanschlüsse nicht vertauscht werden, dies gilt insbesondere für die Anschlüsse im Hochspannungsteil. Hat sich ein Kurzschluß ereignet, dann sind alle Teile, an denen Spuren von Überhitzung sichtbar sind, auszuwechseln.
3. Nach Beenden der Servicearbeiten is sicherzustellen, daß alle Sicherheitsvorrichtungen, wie Isolationsstege, Isolationspapiere, Abschirmungen und Isolations - R -C - Glieder wieder richtig eingesetzt sind.
4. Wenn der Fernseher während längerer Zeit nicht in Betrieb gesetzt wird, sollte der Netzstecker aus der Netzsteckdose gezogen werden.
5. Spannungen von bis zu 29,0kV sind vorhanden, wenn dieser Fernseher in Betrieb ist. Die Inbetreibnhame des Fernsehers ohne aufgesetzte Rückwand bringt die Gefahr eines elektrischen Schlages von der Fernseher - Stromversorgung mit sich. Servicearbeiten sollten daher auch nie durch Personen versucht werden, die nicht in vollem Umfang mit den Sicherheitsvorkehrungen beim Umgang mit Hochspannungsgeräten vertraut sind. Vor der Handhabung mit der Bildröhre ist die Anode der Bildrohre immer an dem Empfängerchassis zu entladen.
6. Nach Beenden der Servicearbeiten sind die folgenden Kriechstrom-Prüfungen durchzuführen, um den Kunden vor der Gefahr eines elektrischen Schlages zu schützen.

MESSUNG DES ISOLATIONSWIDERSTANDES IM ABGESCHALTETEN ZUSTAND

1. Den Netsztecker aus der Netzsteckdose ziehen und die beiden Steckerstifte kurzschließen.
2. Den Geräteschalter des Fernsehgerätes einschalten.
3. Mit einem Ohmmeter den Widerstandswert zwischen dem überbrückten Netzkabelstecker und jedem zugänglichen Metallteil am Gehäuse des Fernsehgerätes, wie Schraubenkopfe,Antennen, Achsen der Regler, Griffassungen usw.messen. Wenn ein zugängliches Metallteil eine. Rückleitung zum Chassis hat, sollte die Anzeige zwischen 4M ohm und 20M ohm betragen. Wenn ein zugängliches Metallteil keine Rückleitung zum Chassis hat, muß die Anzeige infinite betragen.

LEAKAGE CURRENT HOT CHECK (See Fig 1)

1. Plug the AC cord directly into the AC outlet. Do not use the isolation transformer for this check.
2. Connect a 2 k ohm, 10W resistor, in series with an exposed metallic part on the receiver and an earth such as water pipe.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.4 volts RMS. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

HOT CHECK CIRCUIT

SCHALTUNGSAUFBAU FÜR PRUFUNG IM EINGESCHALTETEN ZUSTAND

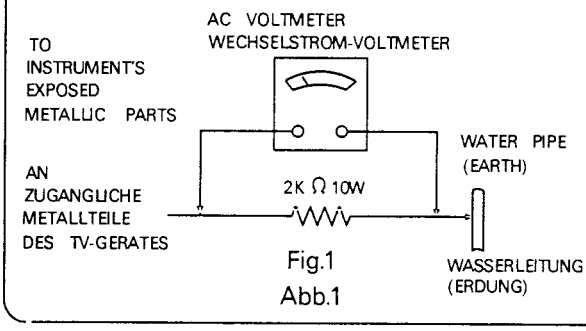


Fig.1
Abb.1

X-RADIATION
WARNING:

1. The potential sources of X-Radiation in TV sets are the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 29.0 kV without causing X-Radiation.

NOTE: It is important to use an accurate periodically calibrated high voltage meter.

1. Set the brightness to minimum.
2. Set the service switch to the SERVICE position.
3. Measure the High Voltage. The meter reading should indicate 27.7 kV, +/- 1.5 kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
4. To prevent an X-Radiation possibility, it is essential to use the specified tube.

SHUT DOWN CIRCUIT TEST

This test must be made as a final check before the set is returned to the customer.

1. With the rear cover removed, supply nominal 220V AC to the set, turn on the power switch.
2. Receive a Phillips pattern.
3. Supply - 40 V DC to TPE7, and confirm that the shut down circuit does not operate.
4. Supply - 60 V DC to TPE7, and confirm that the shut down circuit operates.

MESSUNG DES DRIECHSTROMS IM EINGE- SCHALTETEN ZUSTAND (Siehe Abb 1)

1. Den Netzstecker direkt in eine Netsteckdose stecken. Für diese Messung keinen Trenntransformator verwenden.
2. Einen 2k ohm /10 W - Widerstand in Serie mit einem von außen zugänglichen Metallteil am Fernsehgerät und einer guten, Erdung z.B. Wasserleitung, anschließen.
3. Ein Wechselstrom-Voltmeter mit einmen Meßbereich von 1000 Ohm/Volt oder grober verwenden, um die Spannung über den Widerstand zu messen.
4. Jedes zugänglich Metallteil prüten, und an jedem Punkt dies Spannung messen.
5. Den Netztecker umgekehrt in die Steckdose stecken und jede der obigen Messungen wiederholen
6. Die Spannung darf an keine, der Punkte 1.4V eff. überschreiten. Wird dieser Wert nicht eingehalten, besteht die Gefahr eines elektrischen Schlages, und das Fernsehgerät sollte daher repariert und nachgeprüft werden, bevor es an den Kunden zurückgegeben wird.

RÖNTGENSTRAHLUNG

ACHTUNG:

1. Potentielle Quellen von Röntgenstrahlung in Fernsehgeräten sind das Hochspannungsteil und die Bildrohre.
2. Bei Verwendung eines Bildrohren-Prufgerates fur den Service ist sicherzustellen, daß es für die Belastung von 29.0 kV geeignet ist, ohne daß eine Rontgenstrahlung verursacht wird.

ANMERKUNG: Es ist wichtig daß ein präzises, regelmäßig geprüftes Voltmeter verwendet wird.

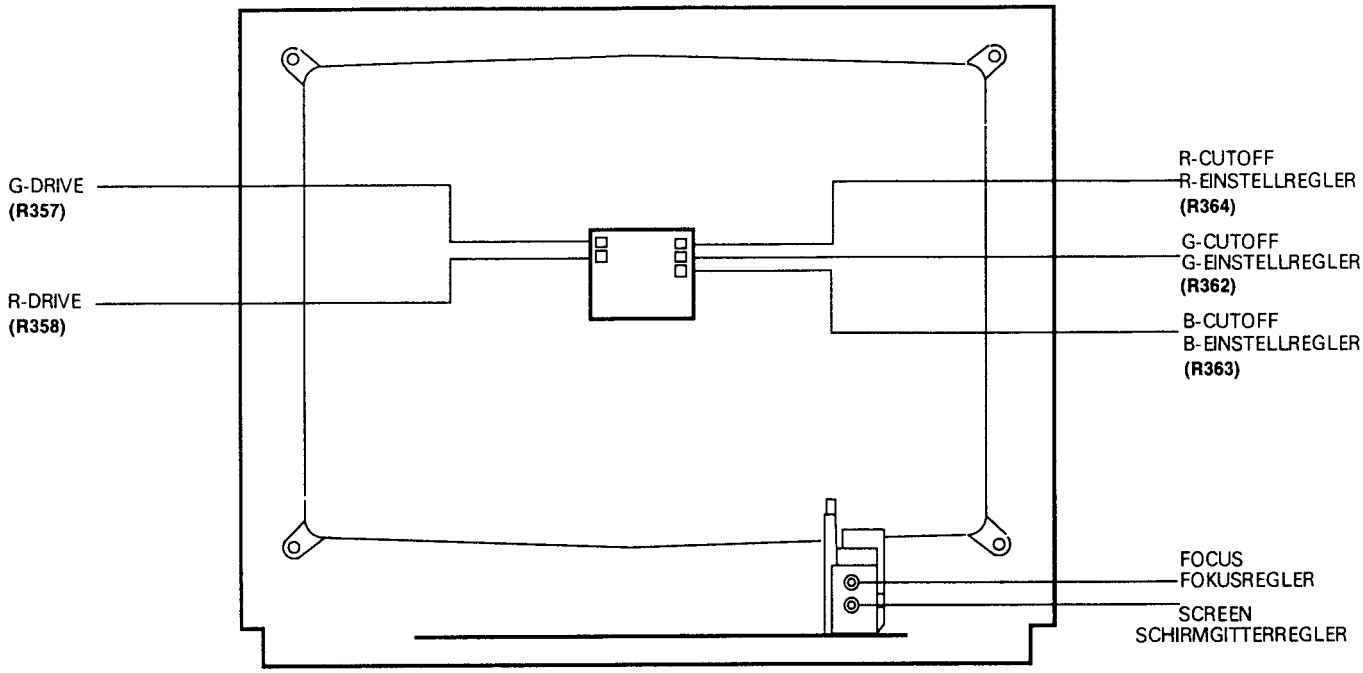
1. Helligkeit auf Minimum stellen.
2. Den Service-Schalter in die 'SERVICE' - Position stellen.
3. Die Hochspannung messen. Die Anzeige des Instrumentes sollite 27.7 kV +/- 1,5 betragen. Falls die Anzeige diese Toleranzgrenzen überschreitet, ist sofortige die Behebung nötig, um die Möglichkeit vorzeitigen Komponentenausfalls zu verhüten.
4. Um die Moglichkeit von Rontgenstrahlung zu begrenzen, ist es wichtig, daß nur die vorgeschriebene Bildröhre verwendet wird.

TEST KURZSCHLLUSS-SICHERHEITSSCHALTUNG

Dieser Test muß als letzte Prüfung vor der Rückgabe des Gerätes an den Kunden durchgeührt werden.

1. Bei abgenommener Rückwand ist dem Gerät 220V Nennspannung zuzuführen, und der Geräteschalter einzuschalten.
2. Ein Phillips-Muster empfangen.
3. Gleichspannung von - 40V an TPE7 einspeisen und sicherstellen, daß die Kurzschluß- Sicherheitsschaltung nicht anspricht.
4. Gleichspannung von - 60V an TPE7 einspeisen und sich vergewissern, daß die Kurzschluß- Sicherheitsschaltung jetzt anspricht.

LOCATION OF CONTROLS KONTROLLANLAGE



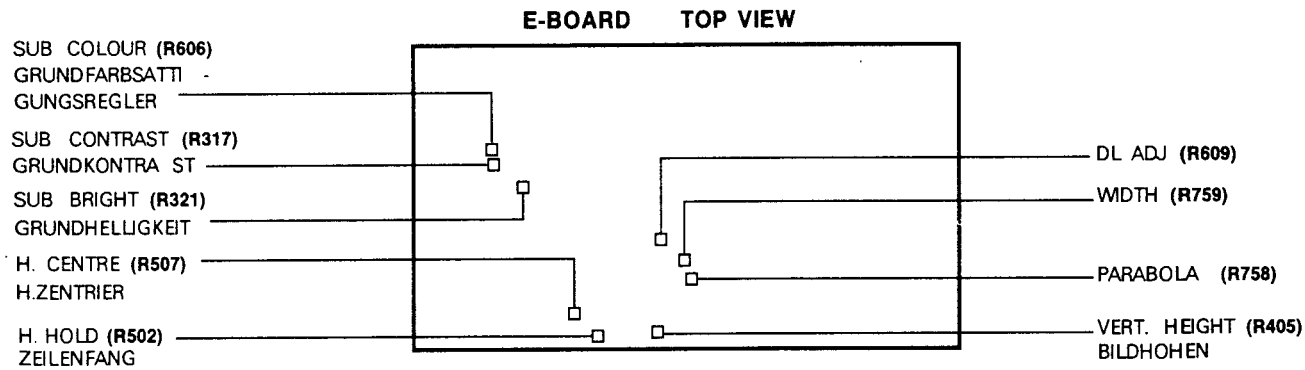


Fig.2 Abb.2

SERVICE HINTS

HOW TO REMOVE THE REAR COVER

1. Remove the 3 screws (A) as shown in Fig.3.
2. Insert a small flat Screw Driver into the slots of the 5 Rear Cover Fastening Clips as shown in Fig. 4.

SERVICE HINWEISE

ENTFERNEN DER GERÄTERÜCKWAND

1. Die 3 Schrauben (A) entfernen, siehe Abb. 3.
2. Mit einem schmalen, flachen Schraubendreher die fünf Klammern der Rückwand öffnen, siehe Abb. 4.

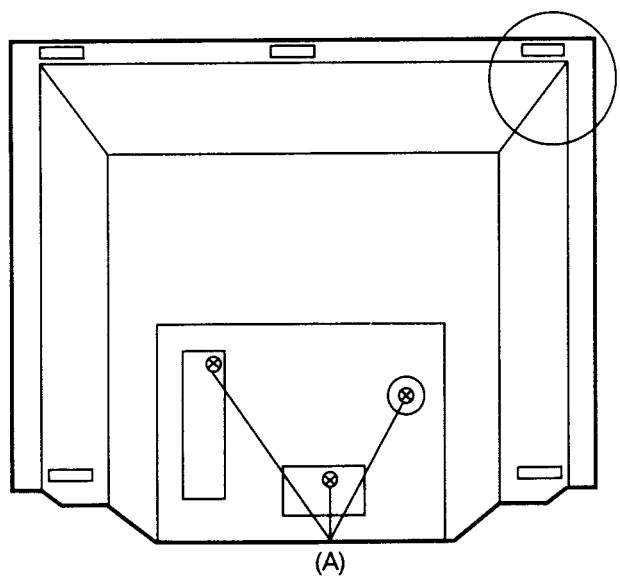


Fig.3 Abb.3

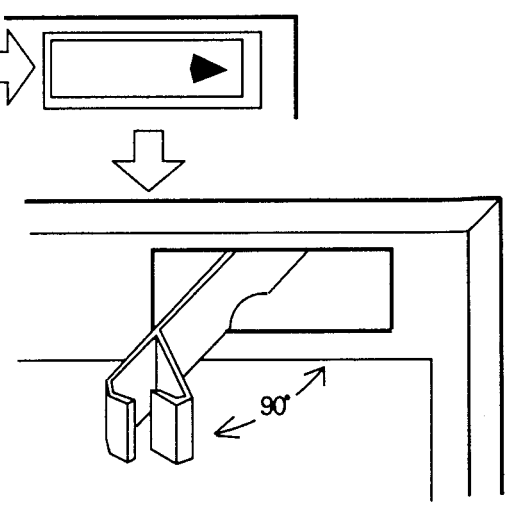


Fig.4 Abb.4

HOW TO MOVE CHASSIS INTO SERVICE POSITION

1. Remove the 3 screws (A) as shown in Fig.5.
2. Remove the 1 screw (B) as shown in Fig.6.
3. Hold and lift the tabs (C) of chassis as shown in Fig.6, then draw out the chassis towards you.

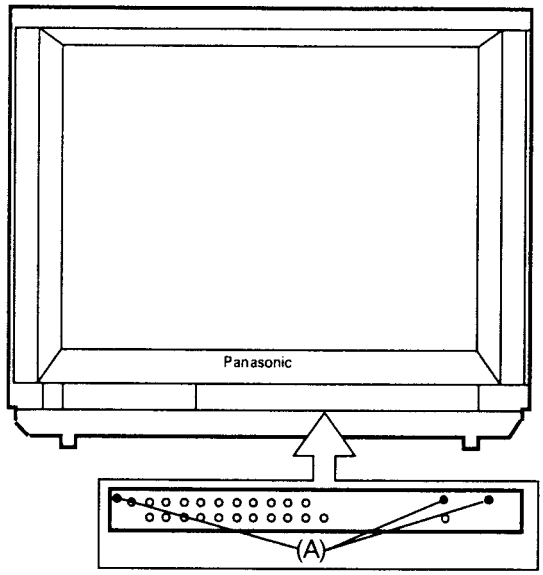


Fig.5 Abb. 5

CHASSIS IN SERVICE-POSITION BRINGEN

1. Die 3 Schrauben (A) entfernen (siehe Abb. 5).
2. Die 1 Schraube (B) entfernen (siehe Abb. 6).
3. Das chassis an den beiden Laschen (C) haltend anheben und dann gegen sich harausziehen (siehe Abb. 6).

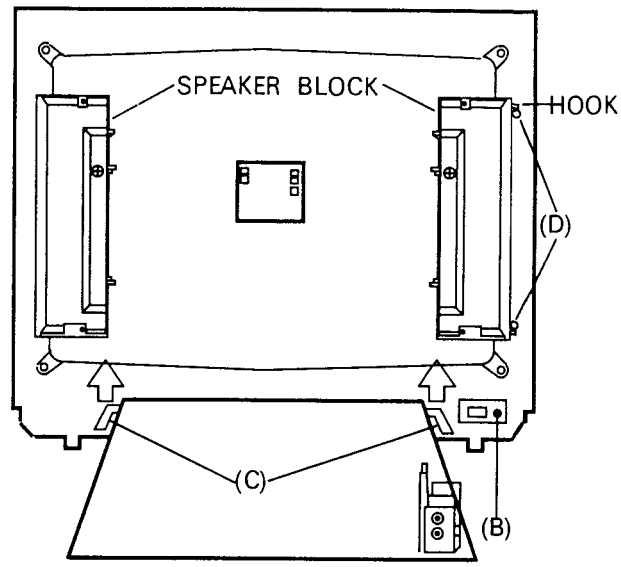


Fig.6 Abb. 6

HOW TO REMOVE THE SPEAKER BLOCK

1. Remove the 2 screws (D) and 2 hooks as shown in fig.6.
2. Draw out the speaker block towards you.

AUSBAUEN DES LAUTSPRECHERBLOCKS

1. Die beiden Schrauben (D) und die beiden Haken entfernen (siehe Abb. 6).
2. Den Lautsprecherblock gegen sich herausziehen.

SERVICE POSITION FOR B-BOARD

1. Remove the B-Board from the E-Board.
2. Connect the extension lead wires between B-Board and E-Board as shown in Fig. 7. (Number TZS709006)

SERVICE STELLUNG FÜR DIE B-PLATINE

1. Die B-Platine von der E-Platine trennen.
2. Die B-Platine über Verlangerungs-Anschlußdrähte mit der E-Platine verbinden, wie in Abb. 7 gezeigt. (Nummer TZS709006)

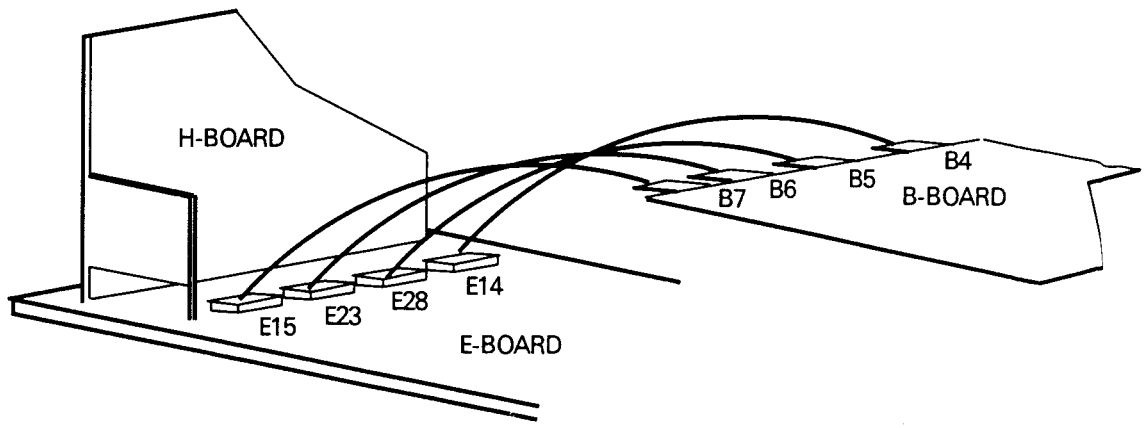


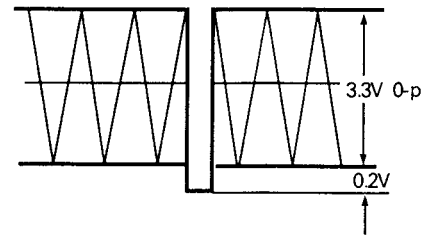
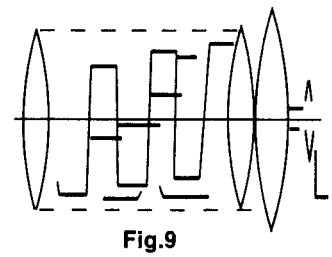
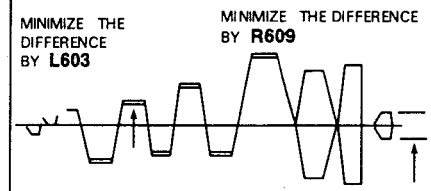
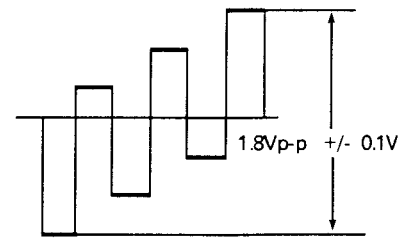
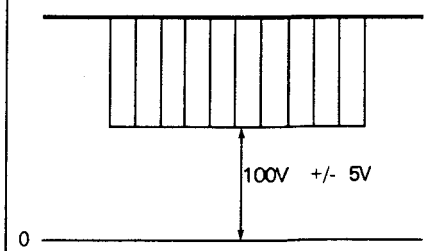
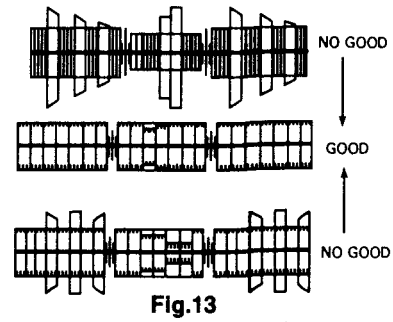
Fig.7 Abb.7

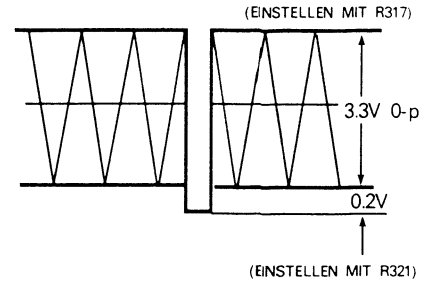
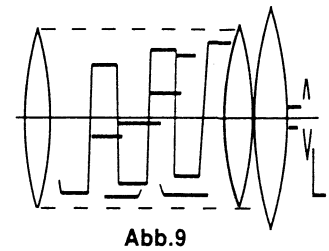
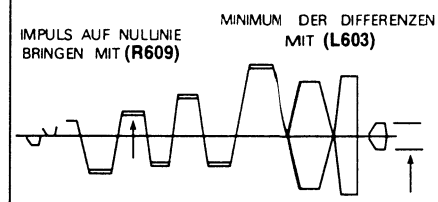
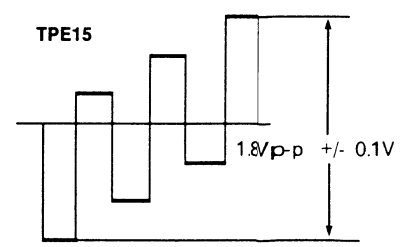
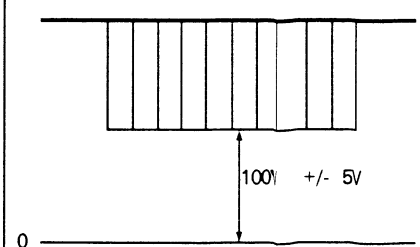
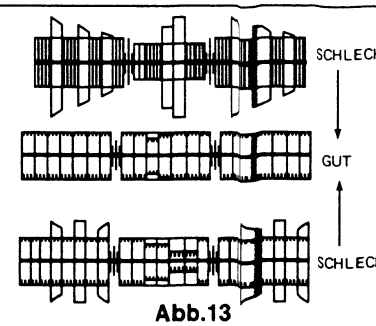
ADJUSTMENTS

ITEM/PREPARATION	ADJUSTMENT PROCEDURE
B VOLTAGE 1. Operate the TV set. 2. Set controls: Bright . . . . . minimum Sub-bright . . . . . minimum Contrast . . . . . minimum	1. Confirm the indicated test points for the specified voltage. **TPE1:** 160.0 +/- 2 V **TPE5:** 12.0 +/- 1.0 V **TPE2:** 5.0 +/- 0.5 V **TPE10:** 210.0 +/- 10 V **TPE3:** 36.0 +/- 2 V **TPE34:** 26.5 +/- 1.5 V **TPE4:** 15.5 +/- 1.0 V **TPE66:** 8.5 +/- 1.0 V
AFC 1. Operate the TV set. 2. Set a channel in UHF band. 3. Supply 38.9MHz continuous wave to TP of Tuner. 4. Connect a DVM to **TPE22.**	1. Adjust **L107** so that the voltage at **TPE22** becomes 5.6 +/- 0.1V 2. Change the frequency and confirm the voltage as shown below. - 100 kHz: less than 3.5 V - 100 kHz: more than 7.0 V
RF AGC 1. Receive a colour bar pattern. 2. Set the input level to 60 dB +/- 2 dB (75 ohm open). 3. Connect an oscilloscope to **TPE9** with DC mode.	1. Turn RF AGC control **(R108)** fully clockwise. 2. Slowly turn **R108** counterclockwise to set it at the point before the voltage at **TPE9** drops.
HIGH VOLTAGE 1. Operate the TV set. 2. Set controls: Bright. . . . . minimum Contrast. . . . . miminum Sub-bright . . . . . minimum	1. Confirm that the High Voltage is within a range of 27.7 kV +/- 1.5 kV. **Note :** If the high voltage is out of tolerance, confirm that voltage at zero beam current (Bright, Contrast and Colour controls to their minimum positions) is within the above tolerance.
TELETEXT CLOCK 1. Operate the TV set and confirm the B voltage. 2. Connect a frequency counter to **TPH4.** 3. Earth **TPH3.**	1. Adjust **C3528**. Reading of the counter : 6.01MHz +/- 5kHz.
PILOT CARRIER 1. Receive a signal with stereo sound. 2. Connect an oscilloscope to **TPB18.**	1. Adjust **L2201** and **R2209** to maximize the amplitude of sine wave on the oscilloscope . 2. Change the stereo sound into a multiplex sound, and connection of the oscilloscope to **TPB17.** 3. Adjust **L2201** and **R2210** to maximize the amplitude of sine wave. **Note :** Adjusted position of **L2201** must be at the point where both stereo sound and multiplex sound are maximized.
CHANNEL SEPARATION 1. Receive a Stereo Signal with 40 % modulation at 1 kHz for R channel, 0 % modulation for L channel. 2. Connect an oscilloscope to **TPB7.**	1. Adjust R2224 to minimize signal level at **TPB7.**

JUSTIERUNGEN

ABGLEICHPUNKTE UND VORBEREITUNG	JUSTIERUNG
VERSORGUNGSSPANNUNG B 1. TV einschalten. 2. Die Regler wie folgt einstellen: Helligkeit ..... minimum Grundhelligkeitsregler . minimum Kontrast ..... minimum	1. Die Messungen an den Testpunkten sollen folgende Betriebsspannungen ergeben. **TPE1:** 160.0 +/- 2 V **TPE5:** 12.0 +/- 1.0 V **TPE2:** 5.0 +/- 0.5 V **TPE10:** 210.0 +/- 10 V **TPE3:** 36.0 +/- 2 V **TPE34:** 26.5 +/- 1.5 V **TPE4:** 15.5 +/- 1.0 V **TPE66:** 8.5 +/- 1.0 V
AFC 1. TV einschalten. 2. Kanal im UHF-Bereich wählen. 3. Meßsender auf 38.9 MHz einstellen und an den Tuner-Testpunkt anschließen. 4. DVM an **TPE22** anschließen.	1. Spule **L107** so abgleichen, daß die Gleichspannung am **TPE22** 5.6V +/- 0.1V beträgt. 2. Die Frequenz ändern, und die Spannung wie folgt kontrollieren: + 100 kHz: Kleiner als 3.5 V - 100 kHz: Großer als 7.0 V
RF AGC 1. Empfang eines Farbbalken - Testbildes. 2. Das Eingangssignal soll mit 60dB +/- 2dB (75 Ω eingespeist werden). 3. Oszilloskop an **TPE9** in DC-Funktion anklemmen.	1. Der Regler RF AGC **R108** ist auf Rechtsanschlag zu stellen. 2. Den Regler **R108** so einstellen, daß er kurz vor dem Punkt steht, an dem der Messwert an **TPE9** ansinkt.
HOCHSPANNUNG. 1. TV einschalten. 2. Die regler wie folgt einstellen: Helligkeit ..... minimum Grundhelligkeitsregler . minimum Kontrast ..... minimum	1. Die Hochspannung darf bei 27.7kV eine Toleranz von +/- 1.5kV. **Anmerkung:** Falls die Hochspannung außerhalb der Toleranz liegt, bitte bei minimaler Helligkeit, Kontrast und Farbsättigung prüfen, ob sie innerhalb der Toleranz ist.
VIDEOTEXT-CLOCK-OSZILLATOR 1. TV einschalten und Betriebsspannung B prüfen. 2. Frequenzzähler an **TPH4** anschließen. 3. **TPH3** auf Masse klemmen.	1. **C3528** einstellen. Ablesung des Zählers : 6.01 MHz +/- 5kHz.
PILOT TONTRÄGER 1. Stereo - Signal empfangen. 2. Oszilloskop an **TPB18.**	1. Mit **L2201** und **R2209** die Sinusamplitude auf Maximum einstelen. 2. Oszilloskop an **TPB17** anklemmen und von Stereo auf Multiplex umschalten. 3. **L2201** und **R2210** auf Maximum der Sinusamplitude justieren. **Anmerkung:** Die Einstellung von **L2201** muß sowohl bei Stereo wie auch Multiplex die maximale Sinusamplitude ergeben!
KANALTRENNUNG 1. Stereo - Signal empfangen. Rechten Kanal mit 40 % 1kHz modulieren. Linker Kanal ohne Modulation. 2. Oszilloskop an **TPB7** anklemmen.	1. **R2224** so einstellen daß das Übersprechen vom rechten zum linken Kanal **TPB7** zum Minimum wird.

ITEM/PREPARATION	ADJUSTMENT PROCEDURE	WAVEFORM
SUB CONTRAST 1. Receive the Philips pattern. (Input level : 75 dB.) 2. Connect an oscilloscope to **TPE15.** 3. Set controls: Bright ..... minimum Contrast ..... maximum Colour ..... minimum Picture ..... centre 4. Earth **TPE7.**	1. Adjust Sub-Bright **R321** for 0.2V higher than black level. 2. Adjust the Sub-Contrast **R317** for 3.3V p-p. 3. Remove link from **TPE7.**	 **Fig.8**
PAL APC 1. Receive a PAL colour bar pattern. 2. Earth **TPE76.** 3. Connect oscilloscope to **TPE15.**	1. Adjust APC trimmer **C637** to obtain stationary or slowly moving colour bars as shown in Fig 9. 2. Remove link and confirm colour bars are stationery.	 **Fig.9**
PAL DELAY LINE 1. Receive a PAL colour bar pattern. 2. Earth **TPE6** 3. Connect oscilloscope to **TPE15.**	1. Adjust DL Adj **R609** and DL Matching Trans **L603** to obtain waveform at **TPE15** as shown in Fig 10.	 **Fig.10**
SUB COLOUR 1. Receive a PAL colour bar pattern. 2. Set controls: Bright ..... minimum Contrast ..... maximum Sub Colour ..... centre 3. Connect DC voltmeter to **TPE21.** 4. Connect an oscilloscope to **TPE15.**	1. Adjust colour to achieve 5.3 V at **TPE21.** 2. Connect a 100 ohm resistor across **TPE6** and earth. 3. Adjust sub colour **R606.** For 1.8 Vpp +/- 0.1 V at TPE15 as shown in Fig 11. 4. Remove 100 ohm resistor from **TPE6** and earth.	 **Fig.11**
TELETEXT CONTRAST **Note:** Before this adjustment is attempted, white balance adjustment must be finished. 1. Receive a teletext signal. 2. Connect an oscilloscope to **TPY1** 3. Set controls: Bright ..... minimum Contrast ..... maximum	1. Adjust **R3514** to obtain the waveform as shown in Fig 12.	 **Fig.12**
BELL FILTER / LINE DISCRIMINATOR 1. Receive a Philips pattern. (SECAM) 2. Connect an oscilloscope to **TPE69.** 3. Earth **TPE76.** 4. Earth **TPE73.**	1. Adjust **L609** to obtain the waveform as shown in Fig 13.	 **Fig.13**

ABGLEICHPUNKTE UND VORBEREITUNG	JUSTIERUNG	SIGNALFORM
GRUNDKONTRAST 1. Empfang eines Farbbalken - Testbildes. 2. Oszilloskop an Testpunkt **TPE15.** 3. Die Regler wie folgt einstellen : Helligkeit ..... minimum Kontrast ..... maximum Farbsättigung ... minimum Bildschärfe .... mittenstellung 4. **TPE7** auf Masse Klemen	1. Grundhelligkeit **R321** auf 0.2 V einstellen. 2. Grundhelligkeit **R317** auf 3.3 Vss einstellen.	 **Abb.8**
PAL APC 1. Empfang eines PAL - Farbbalkan - Testbildes. 2. **TPE76** auf Masse Klemen. 3. Oszilloskop an Testpunkte **TPE15.**	1. Trimmer **C637** auf minimale Bewegung in den Farbbalken abgleichen (siehe Abb. 9) 2. Brücken entfernen und korrekte Farbbalkenfolge überprüfen.	 **Abb.9**
PAL-VERZÖGERUNGSLEITUNG 1. Empfgang eines PAL - Farbbalken - Testbildes. 2. **TPE6** auf Masse Klemen 3. Oszilloskop an Testpunkt **TPE15.**	1. Einstellungen mit den Reglern DL Adj. **R609** und der Spule DL Matching Trans. **L603** so vornehmen, daß die Signalform, an Testpunkt **TPE15** erreicht wird, wie Abb. 10 dargestellt **TPE15.**	 **Abb.10**
GRUNDFARBSÄTTITGUNGS-REGLER Grundeinstellung Farbsättigung(SUB CONTRAST) 1. Farbbalkentestbild empfangen. 2. Kontrast .....maximum Helligkeit.....minimum Konturz(PICTURE)..... mitte R606 (SUB-COLOUR) . . .mitte 3. DVM an **TPE21** anschliessen. 4. Oszillograph an **TPE15** anschliesen.	1. Farbsättigung an **TPE21** auf 5.3 V einstellen. 2. 100 ohm zwischen **TPE6** und Masse einlöten. 3. An **TPE15** mit **R606** (SUB-COL.) 1.8Vss +/- 0.1 V einstellen. 4. 100 ohm zwischen **TPE6** und Masse entfernen.	 **Abb.11**
VIDEOTEXT-KONTRAST **Anmerkung:** Vor dieser Einstellung muß die des Weißabgleiches abgeschlossen sein. 1. Videotext signal empfangen. 2. Oszilloskop an Testpunkt **TPY1** 3. Die regler wie folgt einstellen: Kontrast .....maximum Helligkeit.....minimum	1. Mit dem **R3514** die Signalform nach Abb. 12	 **Abb.12**
GLOCKENFILTER / ZEILENDISKRIMINATOR 1. Ein Philip-Muster empfangen. (SECAM) 2. Oszilloskop an Testpunkt **TPE69.** 3. **TPE76** auf Masse Klemen. 4. **TPE73** auf Masse Klemen.	1. Mit dem **L609** die Signalform nach Abb. 13 einstelle n.	 **Abb.13**

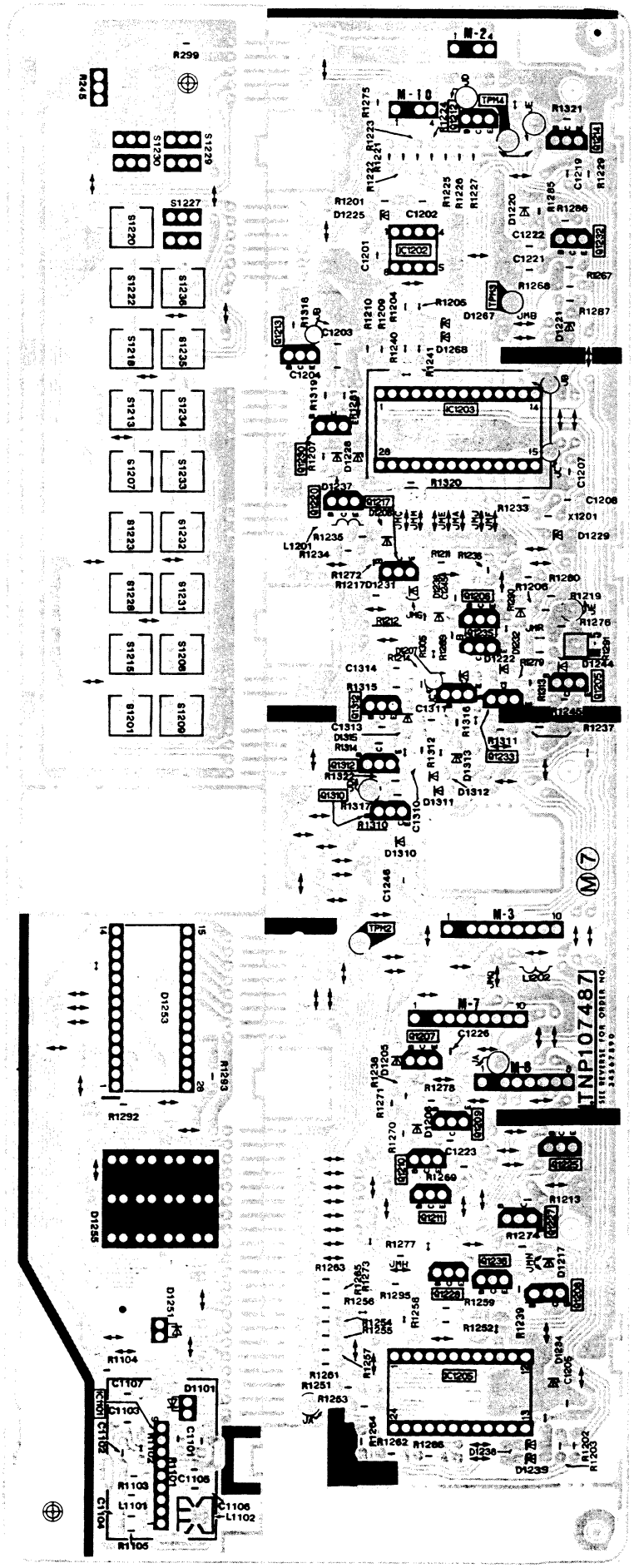
CONDUCTOR VIEWS

ANSICHT DER LEITERBAHNEN

M-BOARD TNP107487

PLATINE M TNP107487

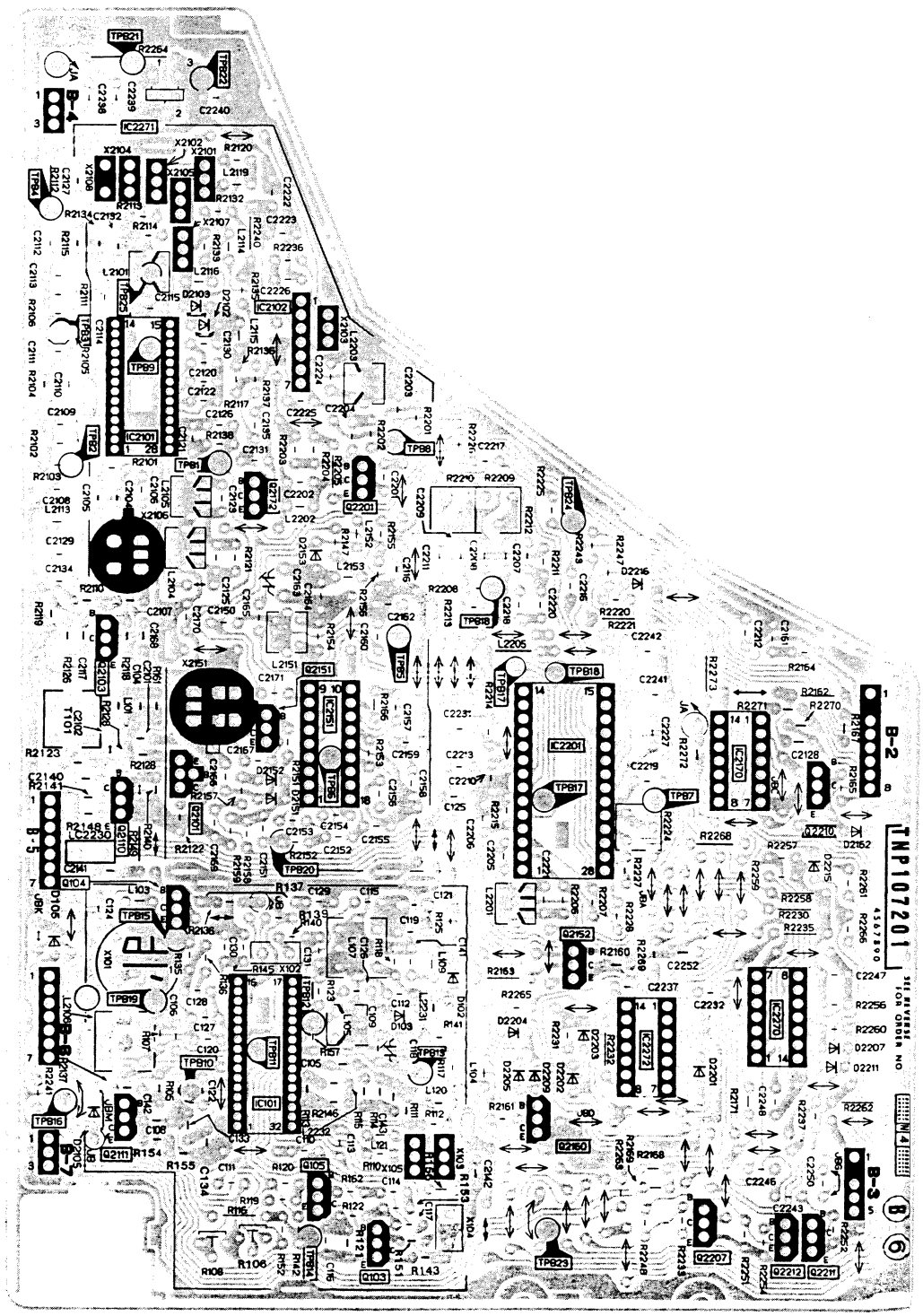
I.C.	TRANSISTOR	DIODE	TEST POINT
	Q1212		TPM4
		D1225 D1220	
	Q1232		
IC1202			
			TPM3
		D1267 D1221	
		D1268	
	Q1213		
IC1203			
	Q1230		
		D1227 D1228	
	Q1220		
		D1208 D1229	
		D1231	
	Q1206	D1232	
	Q1235		
		D1244 D1222	
		D1207	
	Q1311		
	Q1205		
	Q1312		
		D1315	
		D1313	
		D1312	
	Q1313	D1311	
	Q1310		
		D1310	
			TPM2
		D1253	
	Q1207		
		D1205	
	Q1209		
		D1206	
	Q1211		
		D1255	
	Q1227	D1217	
	Q1236		
	Q1228		
	Q1208		
		D1251	
		D1234	
IC1205		D1101	
IC1101			
		D1238	



B-BOARD TNP107201

PLATINE B TNP107201

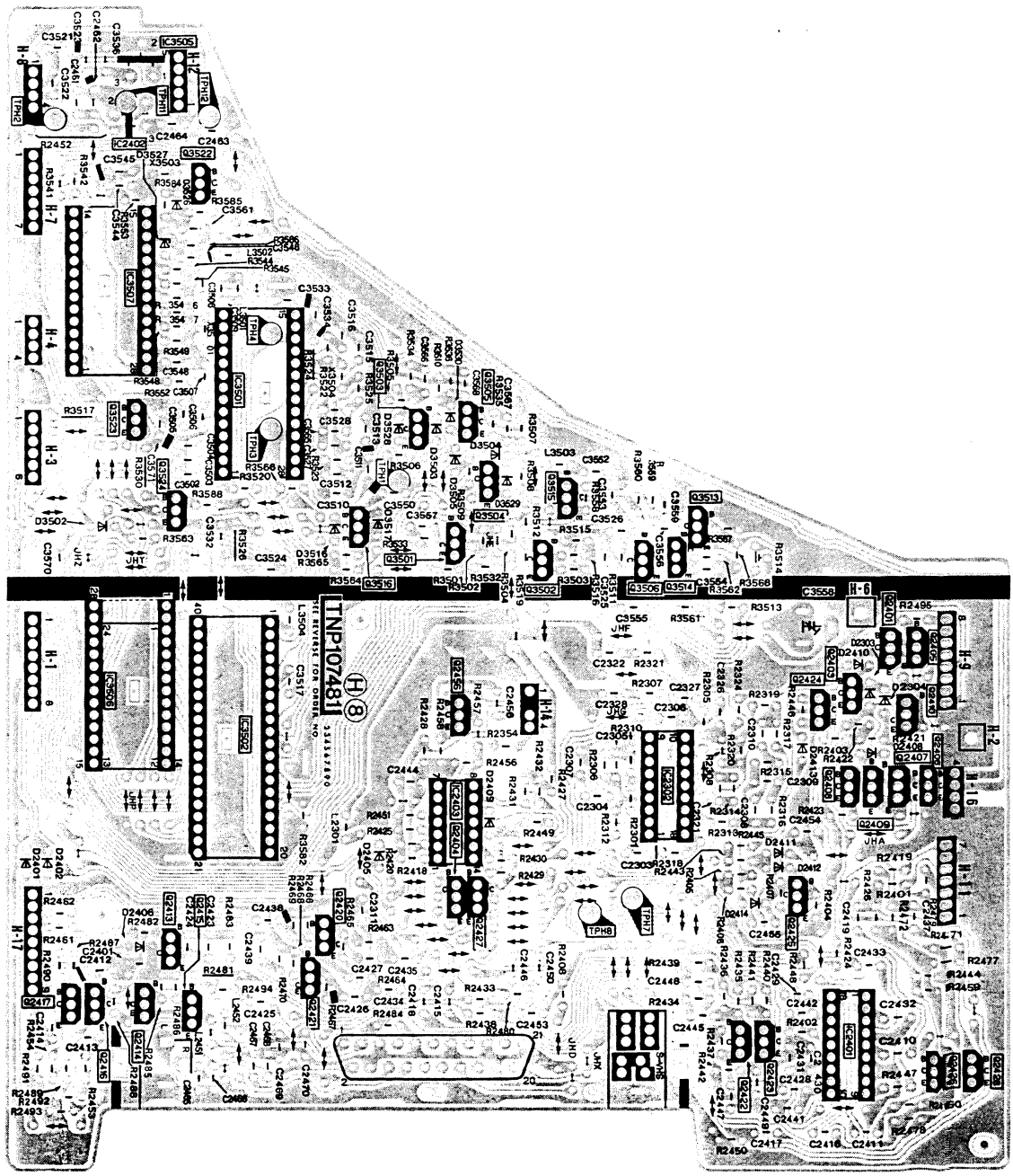
I.C.	IC2271 IC2102 IC2101 IC2151 IC2201 IC2170 IC101 IC2272 IC2270
TRANSISTOR	Q2201 Q2103 Q2101 Q2151 Q2152 Q2210 Q104 Q2111 Q105 Q103 Q2160 Q2207 Q2110
DIODE	D2153 D2216 D2152 D103 D102 D2204 D2203 D2215 D2205 D2209 D2207 D2151 D2202 D2201 D2211 D2162
TEST POINT	TPB4 TPB21 TPB22 TPB3 TPB9 TPB1 TPB8 TPB24 TPB2 TPB5 TPB15 TPB6 TPB17 TPB18 TPB7 TPB19 TPB20 TPB16 TPB11 TPB12 TPB13 TPB10 TPB14 TPB23



H-BOARD TNP107481AG

PLATINE H TNP107481AG

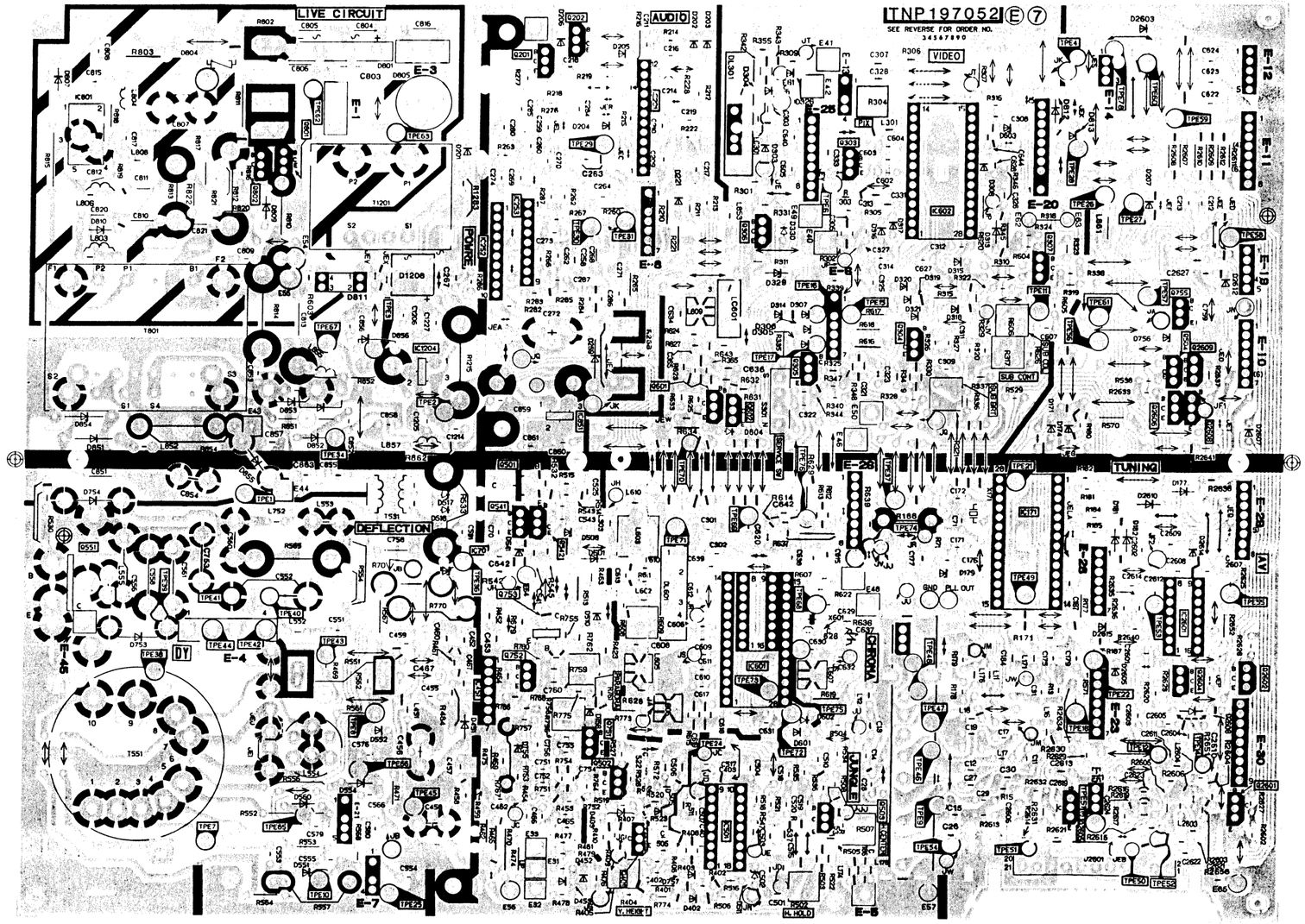
I.C.	IC3505 IC3507 IC2402 IC3501 IC3506 IC3502 IC2403 IC2302 IC2401
TRANSISTOR	Q3522 Q3523 Q3524 Q3516 Q3503 Q3505 Q3504 Q3501 Q3456 Q2404 Q2427 Q3515 Q3502 Q3506 Q3513 Q3514 Q2410 Q2401 Q2405 Q2403 Q2406 Q2424 Q2407 Q2428 Q2409 Q2408 Q2426 Q2417 Q2416 Q2413 Q2414 Q2415 Q2420 Q2421 Q2422 Q2423
DIODE	D3526 D3527 D3502 D3516 D3517 D3528 D3530 D3503 D3504 D3505 D3529 D2409 D2408 D2410 D2304 D2402 D2406 D2405 D2411
TEST POINT	TPH2 TPH11 TPH12 TPH4 TPH3 TPH8 TPH7



E-BOARD TNP197052AV

PLATINE E TNP197052AV

I.C.	IC801 IC1204 IC70 IC451 IC851 IC201 IC501 IC601 IC602 IC171 IC2601
TRANSISTOR	Q551 Q802 Q801 Q201 Q202 Q501 Q541 Q542 Q753 Q751 Q752 Q502 Q401 Q601 Q306 Q602 Q503 Q304 Q504 Q2606 Q2608 Q2605 Q2604 Q2602 Q2601
DIODE	D807 D810 D854 D851 D753 D804 D809 D853 D855 D801 D811 D852 D551 D805 D1208 D552 D201 D451 D206 D205 D204 D508 D501 D510 D758 D541 D755 D453 D452 D202 D203 D403 D505 D754 D757 D604 D303 D330 D329 D314 D306 D305 D320 D319 D321 D179 D603 D313 D812 D171 D174 D2603 D2610 D181 D182 D2615 D2605 D177 D2614 D2612 D2607
TEST POINT	TPE62 TPE67 TPE1 TPE34 TPE39 TPE41 TPE40 TPE38 TPE44 TPE42 TPE7 TPE63 TPE3 TPE43 TPE8 TPE10 TPE66 TPE25 TPE45 TPE2 TPE5 TPE29 TPE30 TPE31 TPE70 TPE71 TPE69 TPE76 TPE24 TPE6 TPE16 TPE15 TPE17 TPE48 TPE47 TPE46 TPE54 TPE4 TPE28 TPE11 TPE26 TPE61 TPE56 TPE49 TPE22 TPE18 TPE51 TPE60 TPE59 TPE27 TPE57 TPE53 TPE52 TPE50 TPE58 TPE55



SCHEMATIC DIAGRAM FOR MODEL TX-24/28A1DT
(Alpha-2 Chassis)

ZEICHENERKLÄRUNG FÜR MODELL TX-24/28A1DT
(Alpha-2 Chassis)

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Wichtiger Sicherheitsinweis

Teile,die mit einen Hinweis ⚠ gekennzeichnet sind, sind wichtig für die Sicherheit. Sollte ein Auswechseln erforderlich sein, sind unbedingt Originalteile einzusetzen.

NOTES:

1. RESISTOR
   All resistors are carbon 1/4W, unless marked .
   Unit of resistance is the OHM (K =1,000, M = 1,000,

   ○ : Nonflammable ⊠ Metal Oxide
   △ : Solid ◎ : Metal Film
   ⊠ : Wire Wound ⊗ : Fuse

2. CAPACITORS
   All capacitors are ceramic 50V, unless marked as follows:
   Unit of capacitance is uF, unless otherwise stated.

   ⊗ : Temperature Compensation
   Ⓜ : Polyester
   ⓜ : Metalized Polyester
   ⊠ : Polypropylene
   : Electrolytic
   NP : Bipolar
   Ⓣ : Dipped Tantalum
   Ⓩ : Z-Type

3. COIL
   Unit of inductance is uH, unless otherwise stated.
4. Components marked ' L' on the schematic diagram shows lead - less parts.
5. TEST POINT
   : Test Point position.
6. EARTH SYMBOL
   : Chassis Earth (Cold) : Line Earth (Hot)
7. VOLTAGE MEASUREMENT
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source ..... 220V AC, 50Hz
   Receiving signal ..... Colour Bar signal (RF)
   All the other customer's controls..... Maximum
8. This schematic diagram is the latest at the time of printing and subject to change without notice.

REMARKS:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions. All circuits,except the Power Circuit, are cold.

PRECAUTIONS

a. Do not touch the hot part or the hot and cold parts at the same time as you are liable to a shock hazard.
b. Do not short-circuit the hot and cold circuits as electrical components may be damaged.
c. Do not connect an instrument, such as an oscilliscope, to the hot and cold circuits simultaneously, as this may cause fuse failure. Connect the earth of instruments to the earth connection of the circuit being measured.
d. Make sure to disconnect the power plug before removing the chassis.

2. The following resistors are fusable safety components,they are rated at the following value.

Ref:	Part No:	Value:
R484	TSF19801	800mA
R567	TSF19102	1A
R1283	TSF19631	630mA

ANMERKUNG

1. WI... STÄNDE

   Alle 1/4 Watt Widerstände si... ...iewiderstände, A... gen sind wie folgt gekennzeichnet:
   Die Maßeinheit ist OHM (Ω) (K =1,000 M =1,000,000)

   ○ : nicht brennbar ⊠
   △ : Lastwiderstand ◎
   ⊠ : Draht ⊗

2. KONDENSATOREN
   Alle Kondensatoren sind Keramikausfürungen.
   Spannungsfestigkeit 50 V, Abweichungen sind wie folgt gekennzeichnet.
   Die Maßeinheit ist uF, wenne keine anderen Bezeichnung sind.

   ⊗ : Temperatur Kompensation
   Ⓜ : Polyester
   ⓜ : Metallisches Polyester
   ⊠ : Polypropylen
   : E
   NP : B
   Ⓣ : T
   Ⓩ : Z

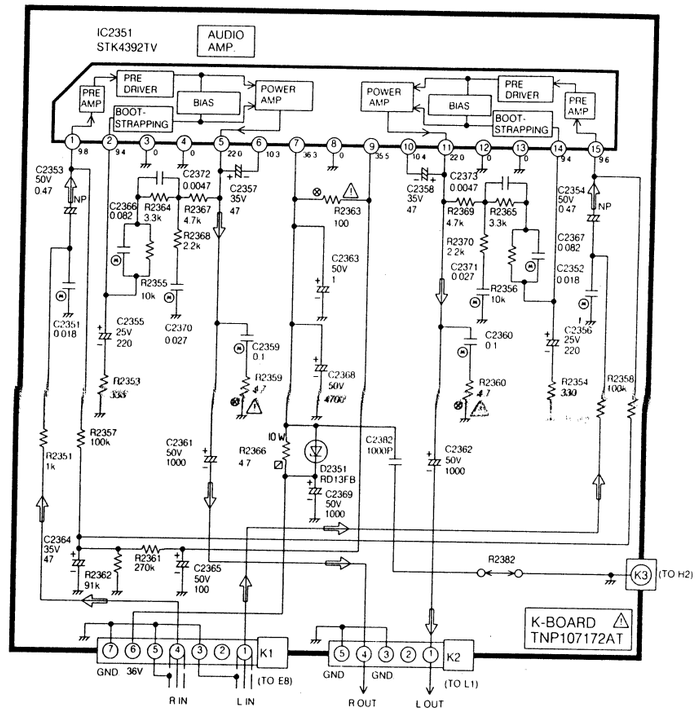
3. SPULEN
   Die Maßeinheit ist uH, Abweichungen sind gekennzeich...
4. Mit 'L' gekennzeichnete Teile sind ohne Anschlußdrähte.
5. TESTPUNKTE
   : Kennzeichnung der Testpunktposition.
6. MASSESYMBOL
   : Erdung am Chassis (kalt) Erdung an M... ...ung
7. SPANNUNGSMESSUNG
   Spannungsmessungen sind mit einem DC-Voltmeter durch...
   Die Meßbedingungen sind folgende:
   Netzspannung ..... 220 V...
   Wiedergabe Signal ..... Farbbalken -
   Alle übrigen Einstellungen für Benutzer ..... Sol...
8. Anderungen im Laufe der Fertigung sind möglich.

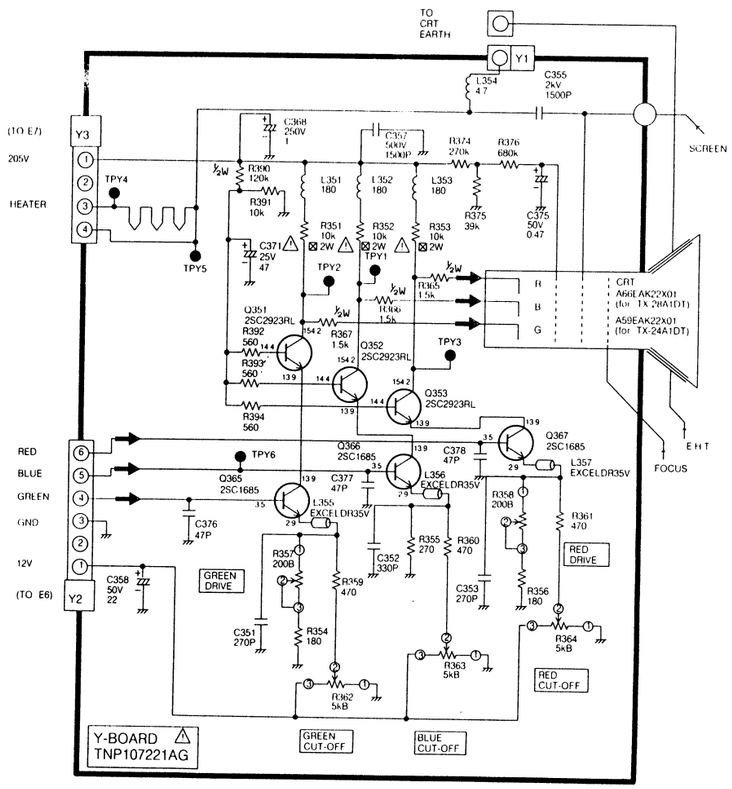
BEMERKUNGEN:

1. Die Starkstromkreis enthält eine Gruppe der Stromkreise di... ...erte Stromquelle bzw. Masse haben. Die Stromkeise sind im Sc... 'HOT' (heiß) und 'COLD' (kalt) gekennzeichnet. Folgende Vorsichtsmaßregein treffen. Alle Stromkreise außer der Sta... sind kalt.

Vorsichtsmaßregeln

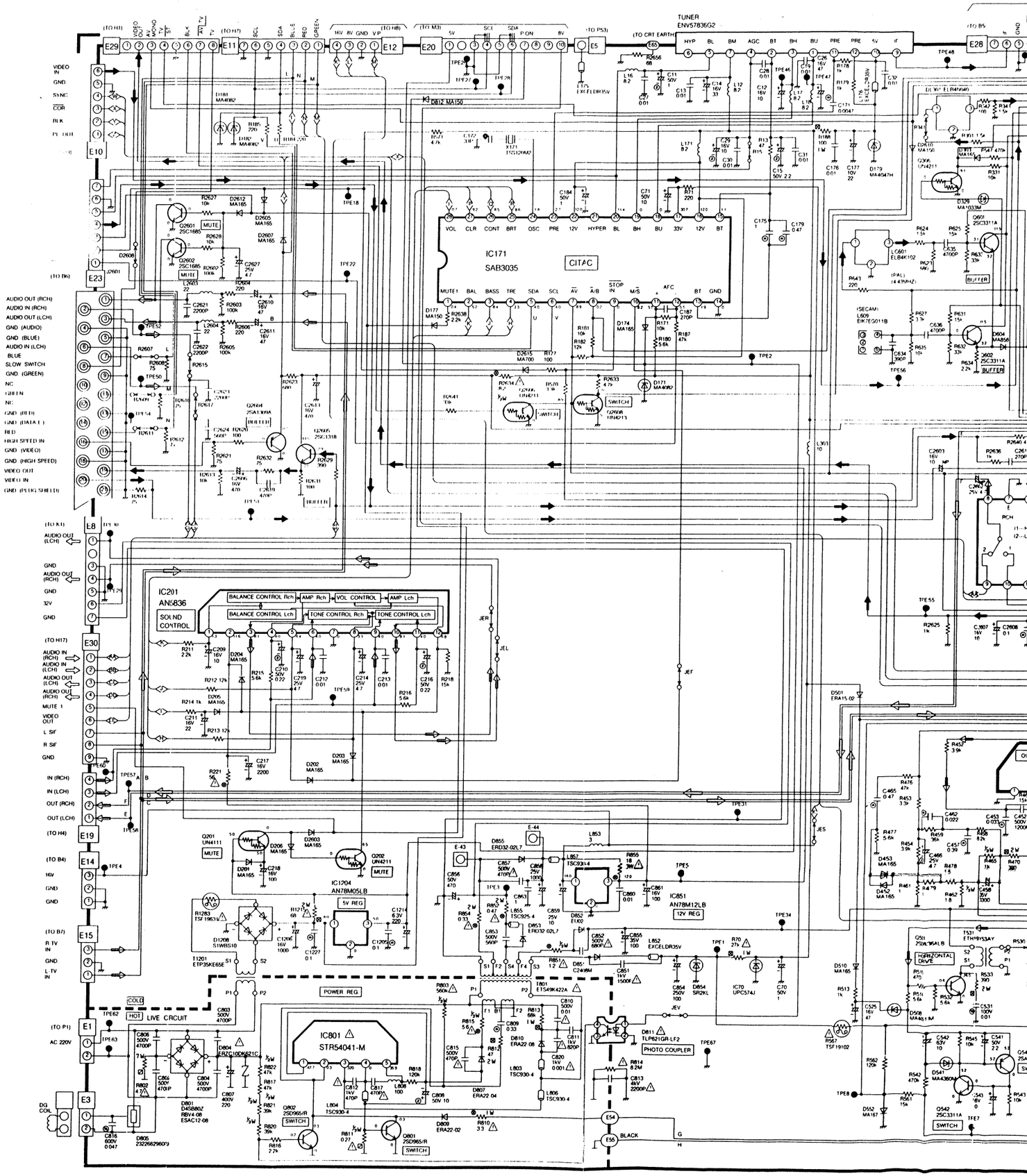
a. Weder die Leitung im heißen Bereich noch gleichzeitig die ... im heißen und im kalten Bereich berühren. Sonst besteht die ... des elektrischen Schlags.
b. Keinesfalls die Leitungen im heißen bzw. im kalten. Bereich ... kutzschleißen. Sonst kann eine Sicherung durchbrennen und ... Komponente können beschädigt werden.
c. Kein Instrument, z.B. ein Oszilloskop, gleichzeitung an der Leitu... im heißen bzw. kalten Bereich anschließen. Sonst kann eine Sich...ung durchbrennen. Die Erde des instruments mit der des zu Prüfenden Schaltkreises verbinden.
d. Vor dem Ausbau des Gehäuses sich vergewissern, daß der Netzstecker ausgezogen ist.

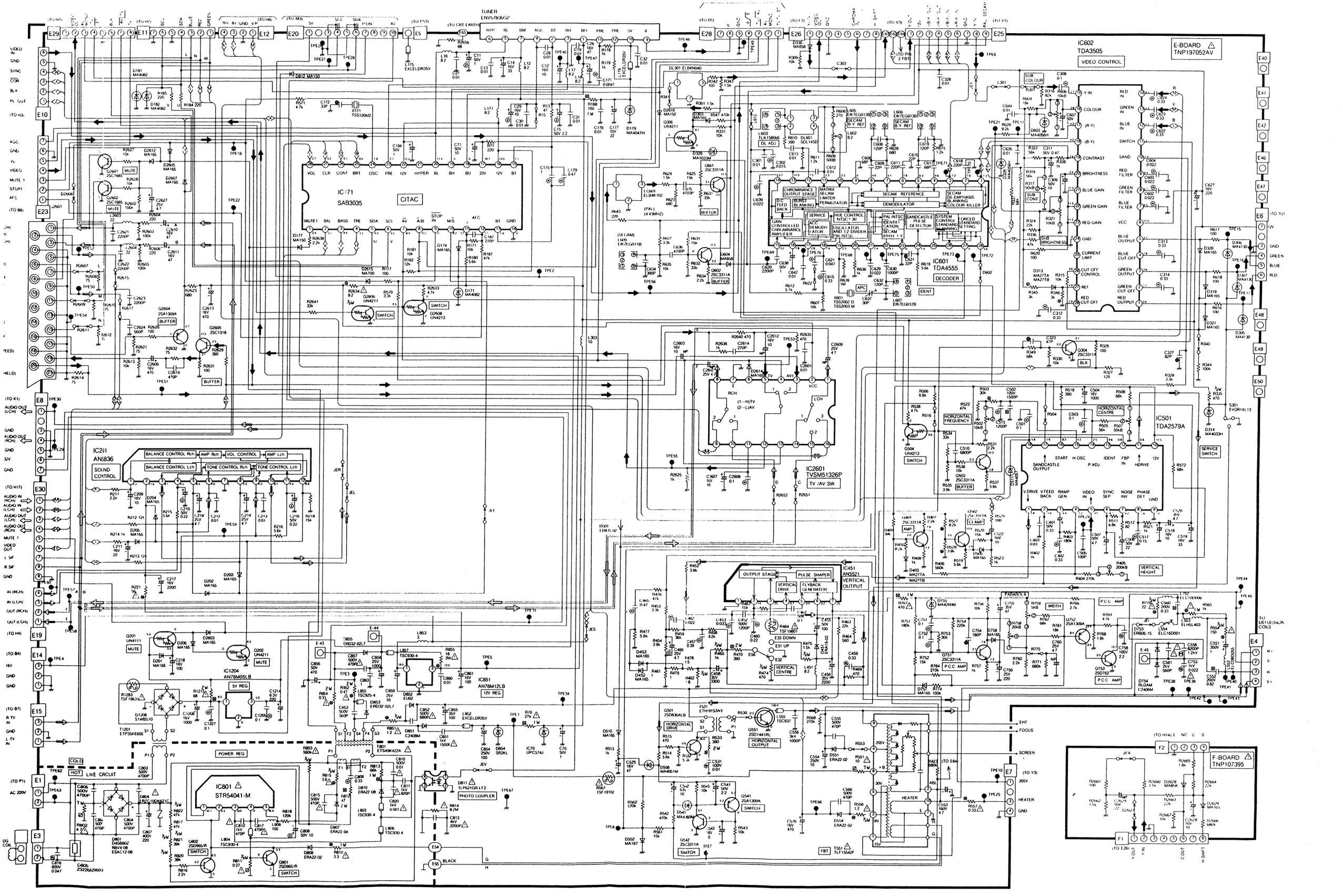


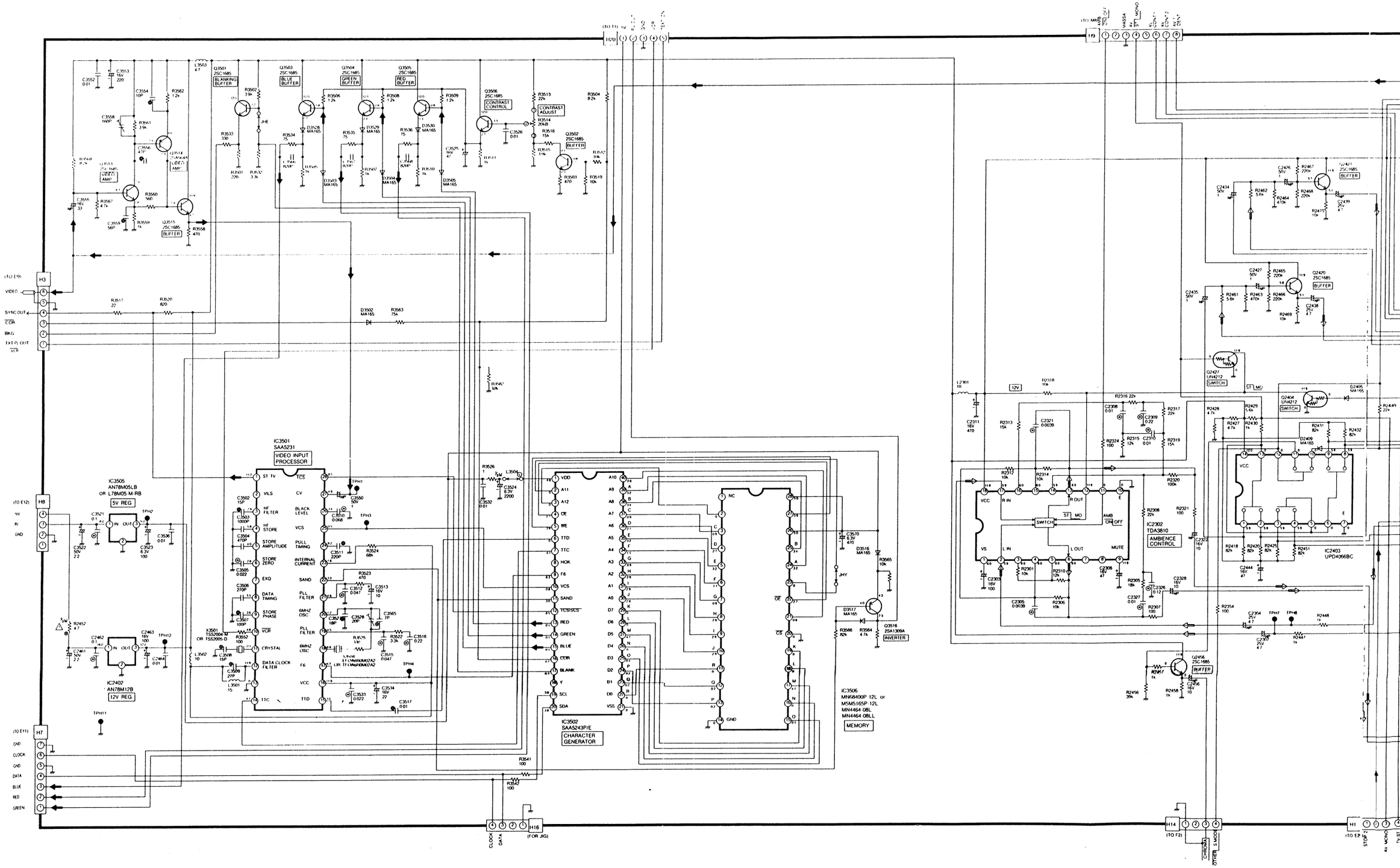


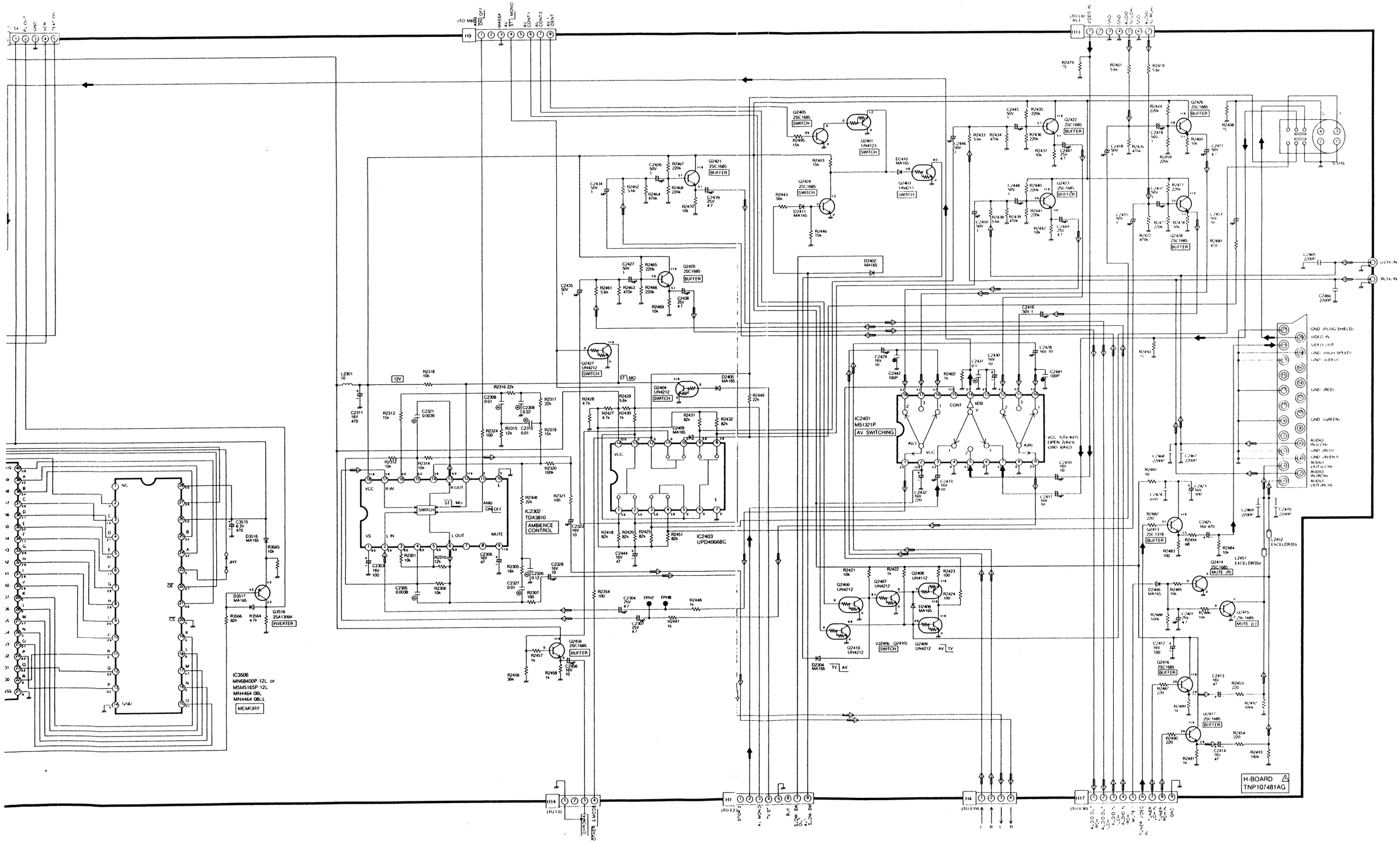
WAVEFORM PATTERN
SIGNAL TABELLE

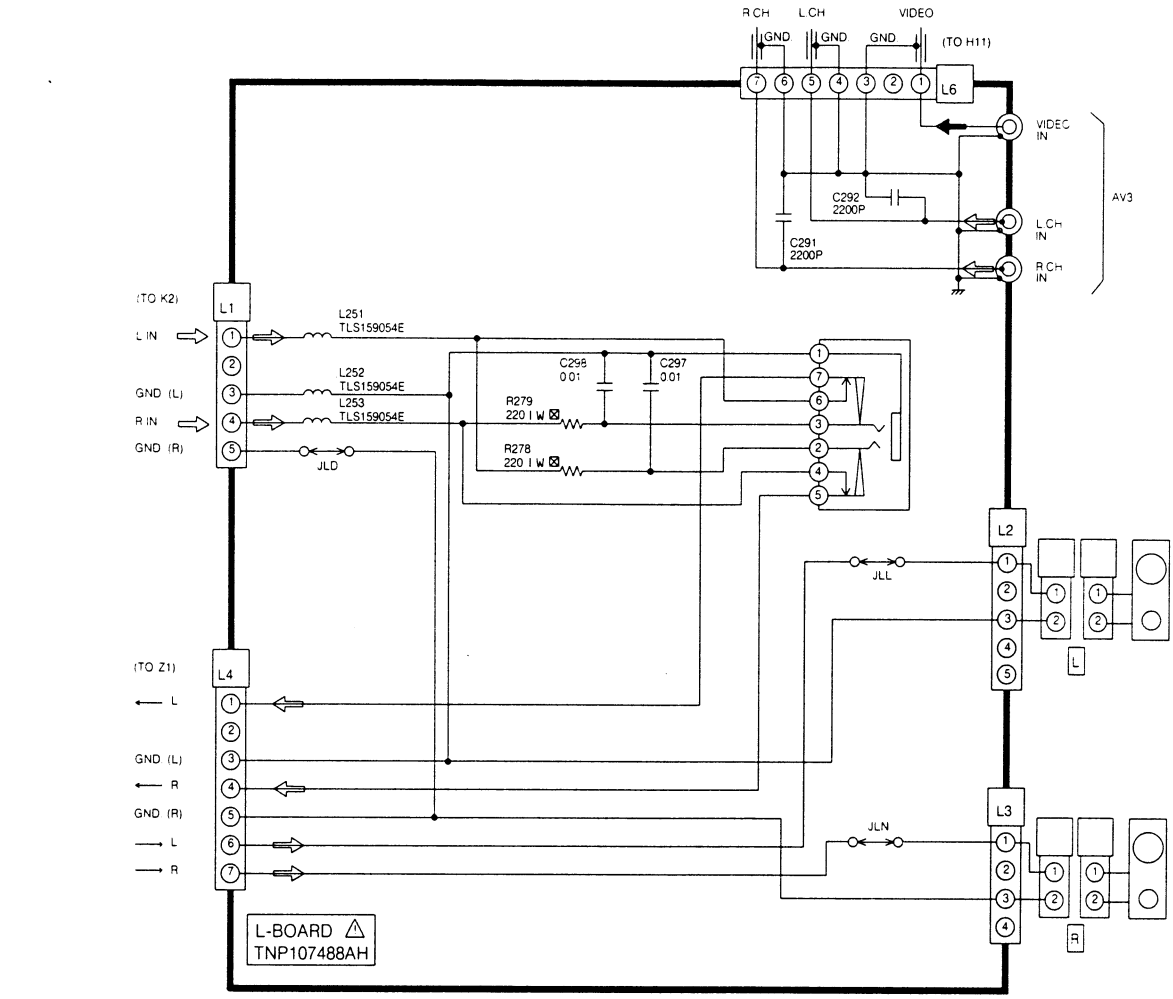
Pin 4 E23 2.8Vp-p (20uS)	Pin 1 IC3501 2.5Vp-p (20uS)	TPH1 2.5Vp-p (20uS)
Pin 15 IC602 0.4Vp-p (20uS)	PIN 12 IC601 1.5Vp-p (20uS)	TPE69 0.2Vp-p (20uS)
Pin 10 IC601 0.2Vp-p (20uS)	Pin 11 IC601 0.2Vp-p (20uS)	Pin 15 IC501 3Vp-p (20uS)
Pin 4 IC451 2.4Vp-p (5mS)	Pin 6 IC451 20Vp-p (5mS)	Pin 2 IC451 45Vp-p (5mS)
Pin 11 IC501 1.5Vp-p (20uS)	BASE Q551 15Vp-p (20uS)	COLLECTOR Q551 1500Vp-p (20uS)
Pin 4 T551 75Vp-p (20uS)	Pin 2 IC501 0.7Vp-p (5mS)	Pin 10 T551 22Vp-p (20uS)
TPE17 3.2Vp-p (20uS)	TPE16 3.2Vp-p (20uS)	TPE15 3.2Vp-p (20uS)
TPY3 145Vp-p (20uS)	TPY2 140Vp-p (20uS)	TPY1 135Vp-p (20uS)

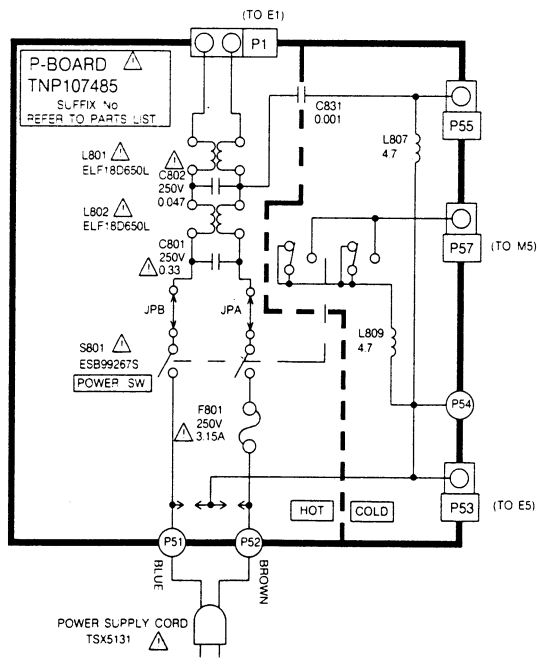


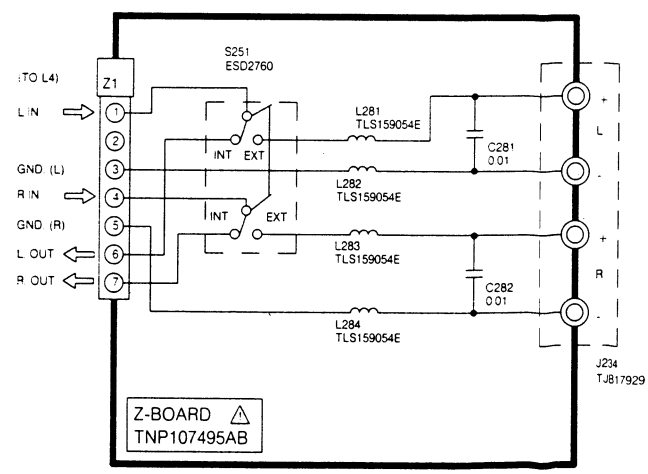

IC171
SAB3035
CITAC
IC602
TDA3505
VIDEO CONTROL
E-BOARD
TNP197052AV
IC2(1
AN6836
SOUND CONTROL
IC801
STR54041-M
POWER REG
IC1204
AN78M05LB
5V REG
IC851
AN78M12LB
12V REG
IC2601
TVSM51326P
TV /AV SW.
IC451
AN5521
VERTICAL OUTPUT
IC501
TDA2579A
IC601
TDA4555
DECODER
F-BOARD
TNP107395
TUNER
ENV57836SP
HOT LIVE CRCUIT
COLD

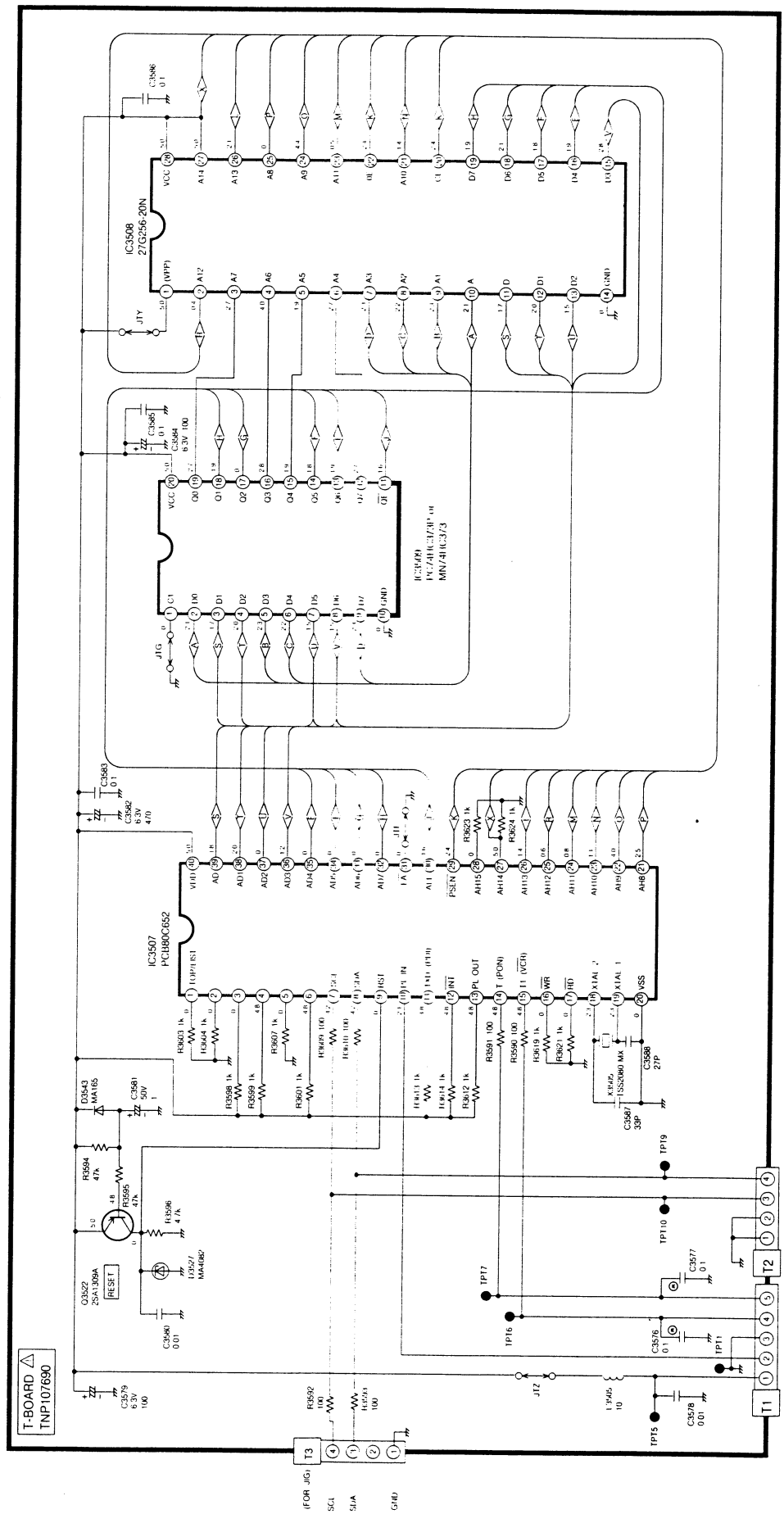

(TO H19)
Q3501 2SC1685 BLANKING BUFFER
Q3503 2SC1685 BLUE BUFFER
Q3504 2SC1685 GREEN BUFFER
Q3505 2SC1685 RED BUFFER
Q3506 2SC1685 CONTRAST CONTROL
CONTRAST ADJUST
Q3502 2SC1685 BUFFER
Q3515 2SC1685 BUFFER
Q2401 2SC1685 SWITCH
Q2421 2SC1685 BUFFER
Q2424 2SC1685 SWITCH
Q2420 2SC1685 BUFFER
Q2427 UN4212 SWITCH
Q2404 UN4212 SWITCH
Q2456 2SC1685 BUFFER
D3502 MA165
D3503 MA165
D3504 MA165
D3505 MA165
D3516 MA165
D2405 MA165
D2434 MA165
D2411 MA165
H3
VIDEO
SYNC OUT
COR
BKG
TXT FLOF OUT
VER
H8
5V REG
AN78M05LB OR L78M05 M-RB
H7
12V REG
AN78M12B
IC2402
H16
(FOR JIG)
CLOCK
DATA
IC3501
SAA5231
VIDEO INPUT PROCESSOR
ST TV
VILS
HF FILTER
HF STORE
STORE AMPLITUDE
STORE ZERO
EXO
DATA TIMING
STORE PHASE
VCR
CRYSTAL
DATA CLOCK FILTER
VCC
TTC
TCS
CV
BLACK LEVEL
VCS
PULL TIMING
INTERNAL CURRENT
SAND
PLL FILTER
6MHZ OSC
PLL FILTER
6MHZ OSC
F6
TTD
X3501 TSS2004 M OR TSS2005-D
IC3502
SAA5243P/E
CHARACTER GENERATOR
VDD
A11
A12
OE
WE
TTD
TTC
HOK
F6
VCS
SAND
TCS/SCS
RED
GREEN
BLUE
COR
BLANK
SCL
SDA
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
D7
D6
D5
D4
D3
D2
D1
D0
VSS
IC3506
MN68400P 12L or M5M5165P-12L MN4464-08L MN4464-08LL
MEMORY
NC
GND
OE
CS
(TO H19)
MAIN
MASSA
AV MONO
AV CON-1
AV CON-2
AV I-2
IC2403
UPD4066BC
IC2302
TDA3810
AMBIENCE CONTROL
VCC
R IN
L IN
R OUT
L OUT
VS
MUTE
SWITCH
ST MO
AMB ON OFF
(TO E12)
(TO E11)
(TO F2)
(TO E2)
STOP-2
AV MONO
TV ST
BLK
SCOR SW
AV1
SLOW SW
CHROMA
OTHER S.VIDEO

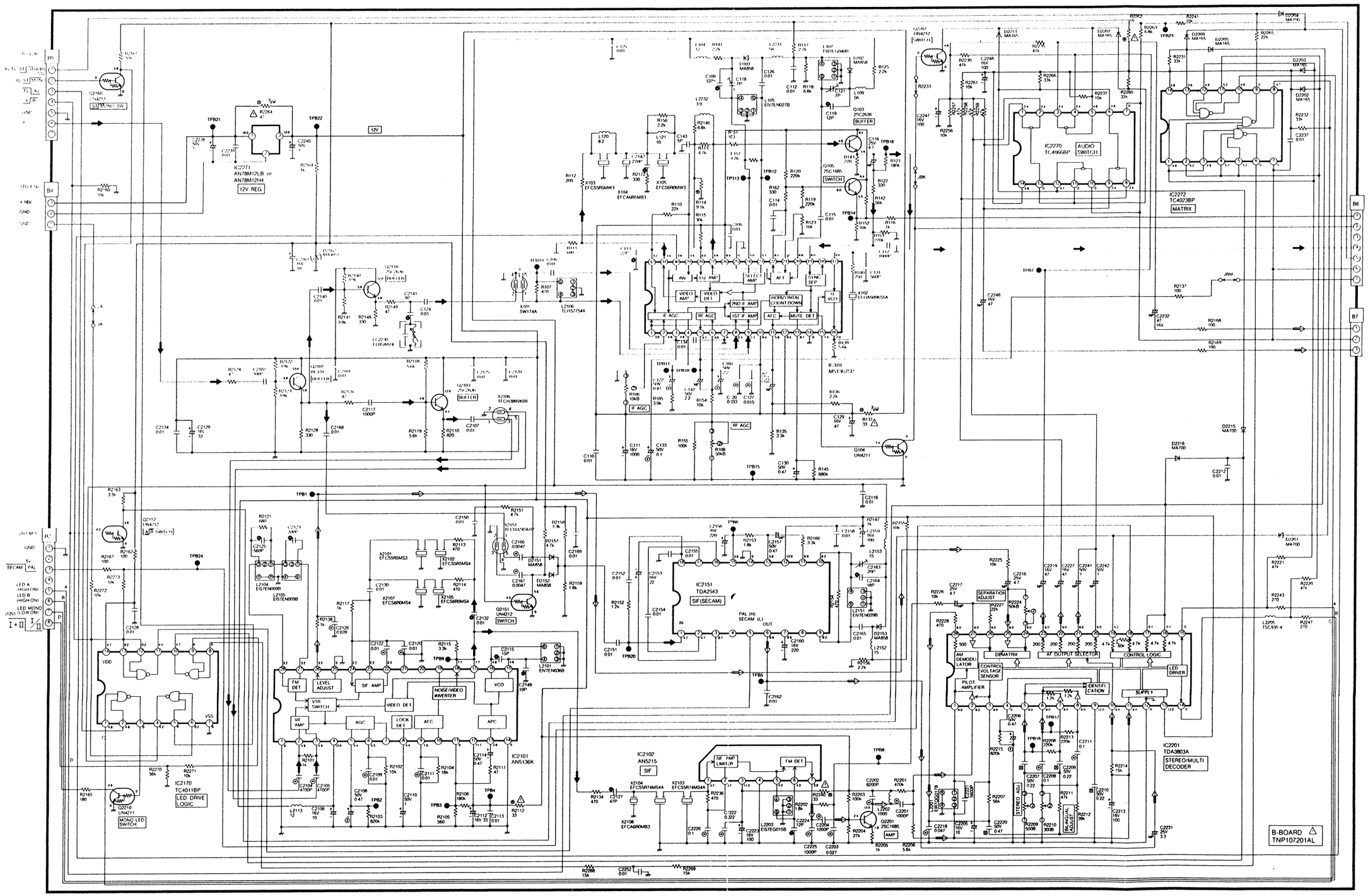

(TO M6)
H9
SW OFF
MASSA
AV1 ST1 MONO
AV CONT 1
AV CONT 2
AV1 IDENT
(TO L6) AV1
VIDEO IN
GND
GND
AUDIO IN L-CH
GND
AUDIO IN R-CH
IC2401
M51321P
AV SWITCHING
IC2402
TDA3810
AMBIENCE CONTROL
IC2403
UPD4066BC
IC3506
MN6840DP-12L or
M5M5165P-12L
MN4464-08L
MN4464-08LL
MEMORY
H-BOARD
TNP107481AG
(TO L12)
(TO L19)
(TO L30)
(TO H2)
(TO H4)
(TO H7)
(TO H14)
(TO H17)
L-CH-IN
R-CH-IN
GND (PLUG SHELL)
VIDEO IN
VIDEO OUT
GND (HIGH SPEED)
GND (VIDEO)
GND (RED)
GND (GREEN)
AUDIO IN (L-CH)
GND (AUDIO)
AUDIO OUT (L-CH)
AUDIO IN (R-CH)
AUDIO OUT (R-CH)

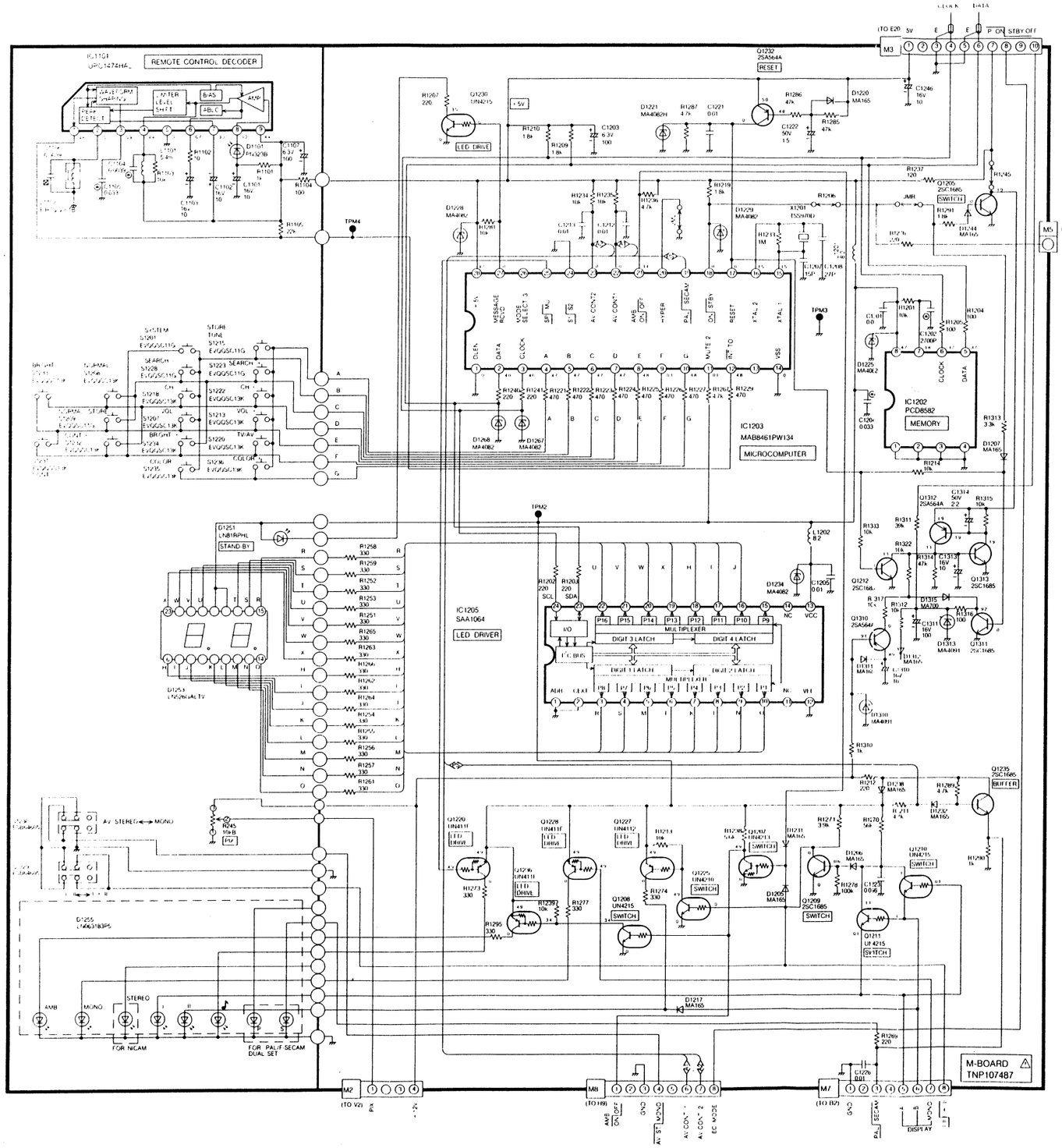

R CH
L CH
VIDEO
GND
GND
GND
(TO H11)
L6
VIDEO IN
L CH IN
R CH IN
AV3
C292 2200P
C291 2200P
(TO K2)
L IN
GND (L)
R IN
GND (R)
L1
L251 TLS159054E
L252 TLS159054E
L253 TLS159054E
JLD
C298 0.01
C297 0.01
R279 220 1 W
R278 220 1 W
L2
JLL
L
(TO Z1)
L
GND (L)
R
GND (R)
L
R
L4
L3
JLN
R
L-BOARD
TNP107488AH

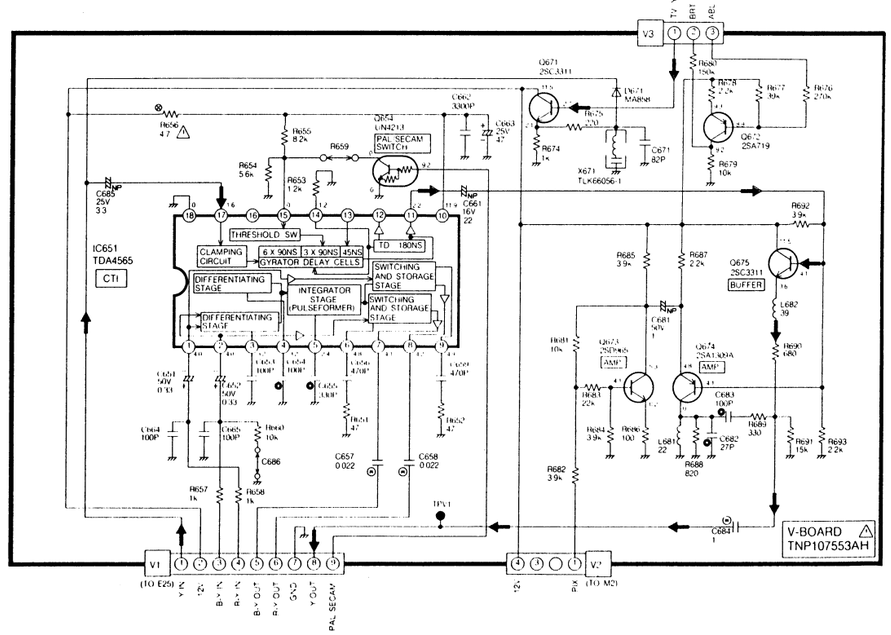

(TO E1)
P1
P-BOARD
TNP107485
SUFFIX 'No
REFER TO PARTS LIST
C831 0.001
L807 4.7
P55
L801 ELF18D650L
C802 250V 0.047
L802 ELF18D650L
C801 250V 0.33
P57
(TO M5)
JPB
JPA
S801 ESB99267S
POWER SW
L809 4.7
F801 250V 3.15A
P54
HOT
COLD
P53
(TO E5)
P51
P52
BLUE
BROWN
POWER SUPPLY CORD TSX5131


(TO L4)
Z1
S251 ESD2760
L IN
GND (L)
R IN
GND (R)
L OUT
R OUT
INT
EXT
INT
EXT
L281 TLS159054E
L282 TLS159054E
L283 TLS159054E
L284 TLS159054E
C281 0.01
C282 0.01
L
R
J234 TJB17929
Z-BOARD
TNP107495AB


T-BOARD
TNP107690
IC3508
27G256-20N
IC3507
PCH80C652
IC3509
MN/41HC373
T1
T2
T3
(TO H20)
(TO H16)
(FOR JIG)
+5V
PL IN
GND
VCR
TXT ON
SDA
SCL
RESET


IC2271
AN78M12LB or
AN78M12H4
12V REG
IC2270
TC4066BP
AUDIO
SWITCH
IC2272
TC4023BP
MATRIX
IC2151
TDA2543
SIF(SECAM)
IC2101
AN5136K
IC2170
TC4011BP
LED DRIVE
LOGIC
IC2201
TDA3803A
STEREO/MULTI
DECODER
IC2102
AN5215
SIF
IC2111
MN1382/731
B-BOARD
TNP107201AL


REMOTE CONTROL DECODER
IC1101
UPC1474HA_
IC1203
MAB8461PW134
MICROCOMPUTER
IC1205
SAA1064
LED DRIVER
IC1202
PCD8582
MEMORY
M-BOARD
TNP107487
STAND-BY
FOR NICAM
FOR PAL/F SECAM DUAL SET
AV STEREO ⟷ MONO
LED DRIVE
RESET
SWITCH
BUFFER
MULTIPLEXER
DIGIT 3 LATCH
DIGIT 4 LATCH
DIGIT 1 LATCH
DIGIT 2 LATCH
I²C BUS
(TO V2)
(TO H99)
(TO B2)
(TO E20)
(TO M5)

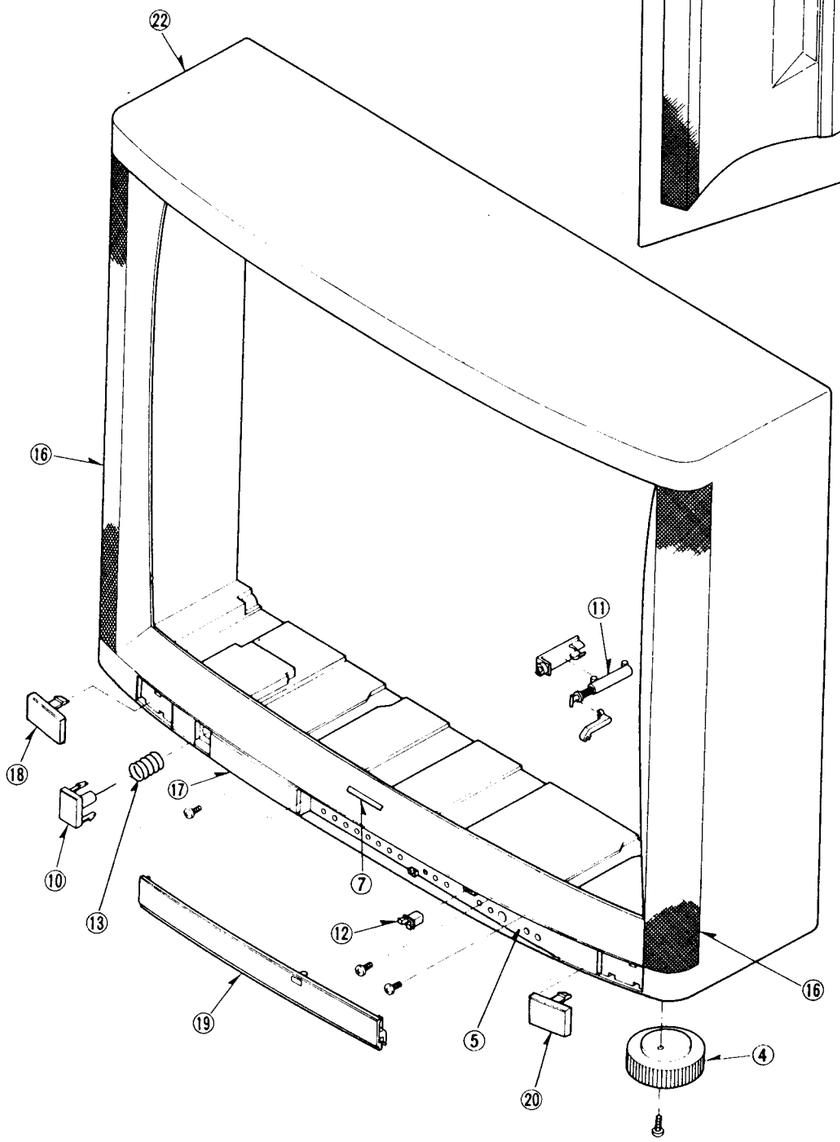

IC651
TDA4565
CTI
THRESHOLD SW
CLAMPING CIRCUIT
6 X 90NS
3 X 90NS
45NS
GYRATOR DELAY CELLS
TD 180NS
DIFFERENTIATING STAGE
INTEGRATOR STAGE (PULSEFORMER)
SWITCHING AND STORAGE STAGE
PAL SECAM SWITCH
X671
TLK66056-1
V-BOARD
TNP107553AH
(TO E25)
(TO M2)

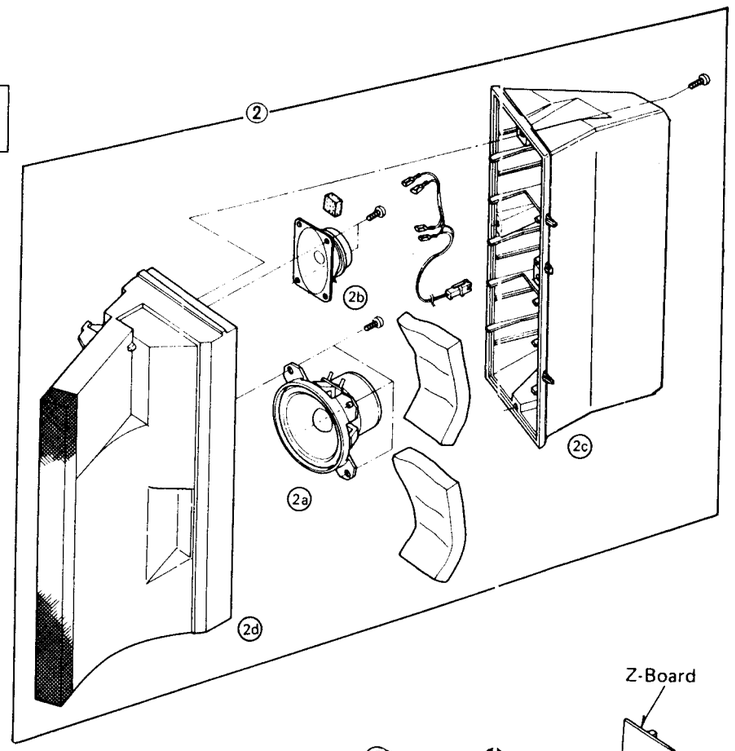
PARTS LOCATION

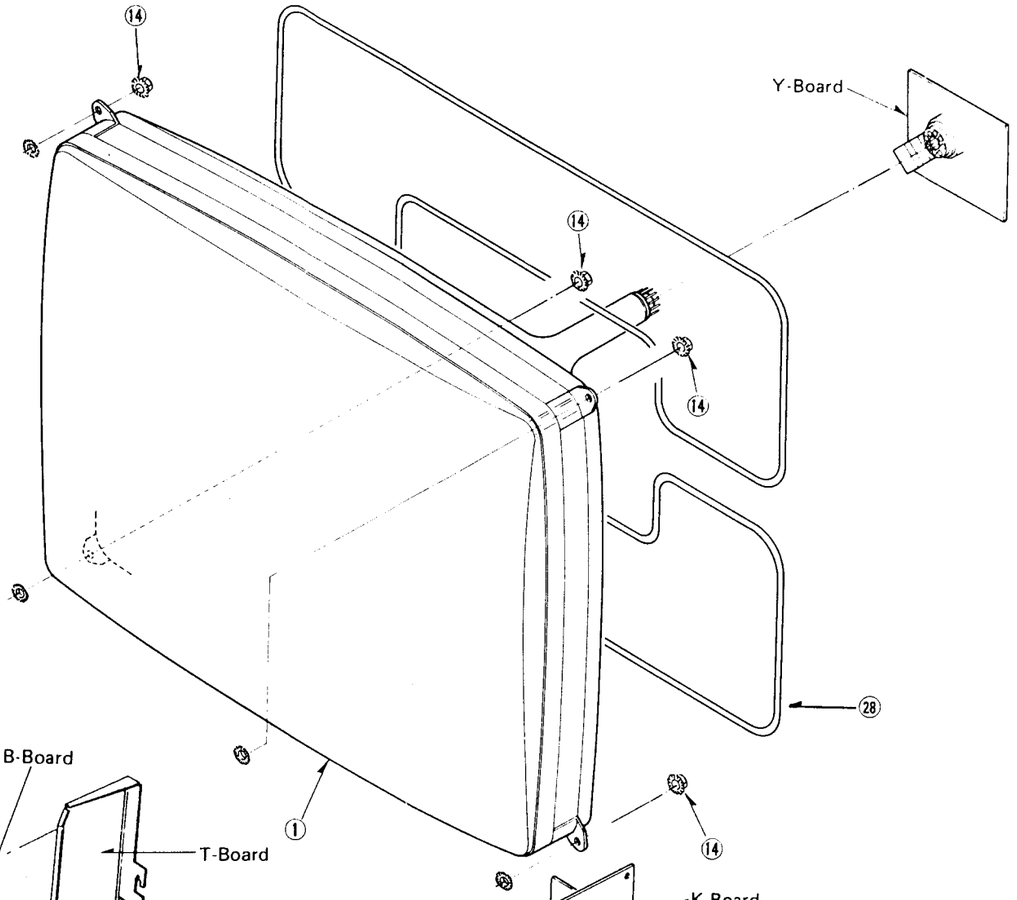
Note : The number on mechanical parts indicates Ref. No. of Replacement Parts List.

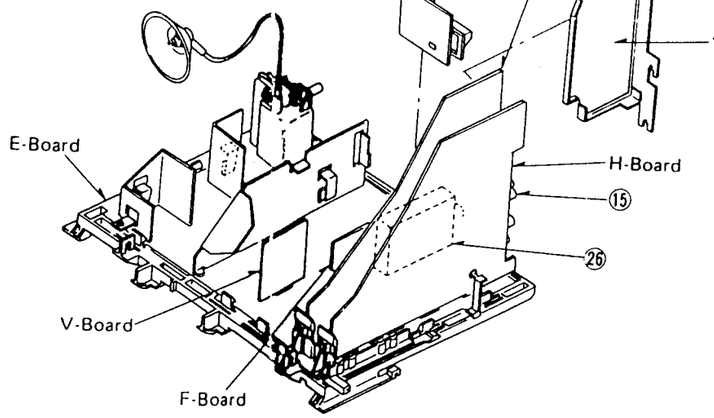
EXPLOSIONSZEICHNUNG

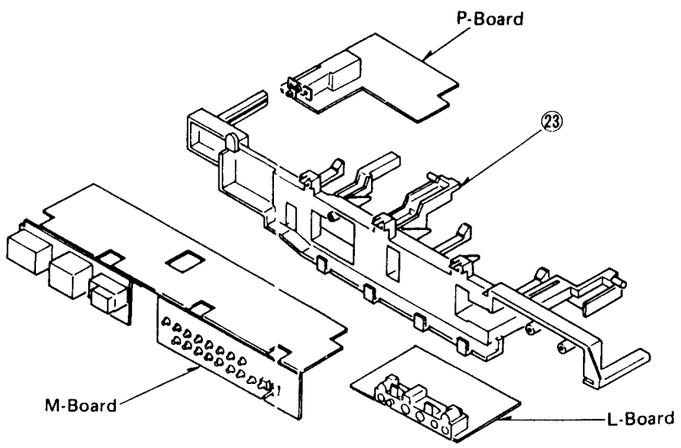
Anmerkung: Die Nummer auf den mechanischen Teilen zeigt die Bezugsnummer der Ersatzteilliste an.

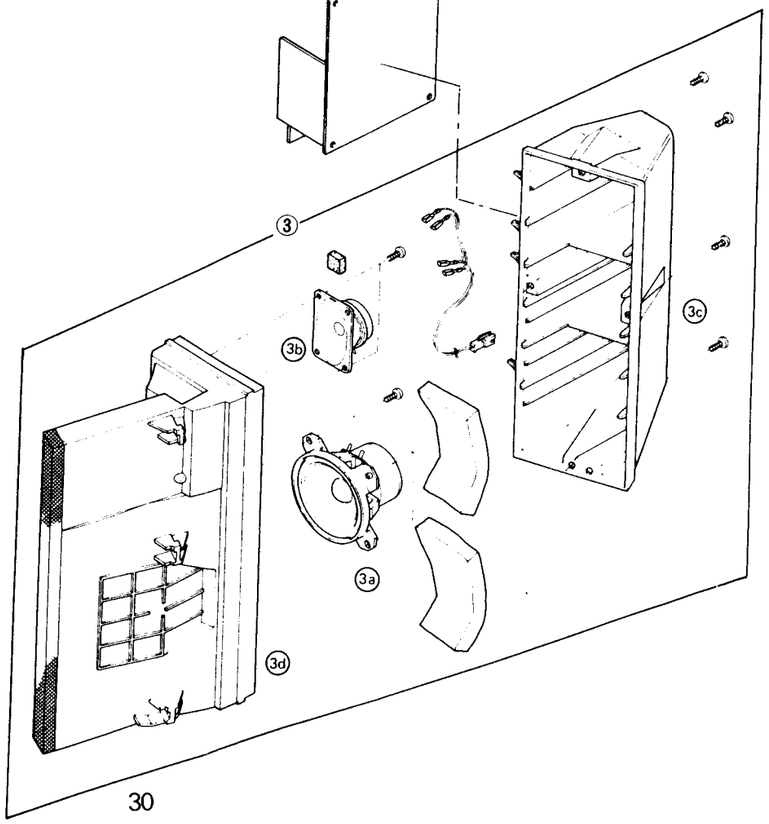


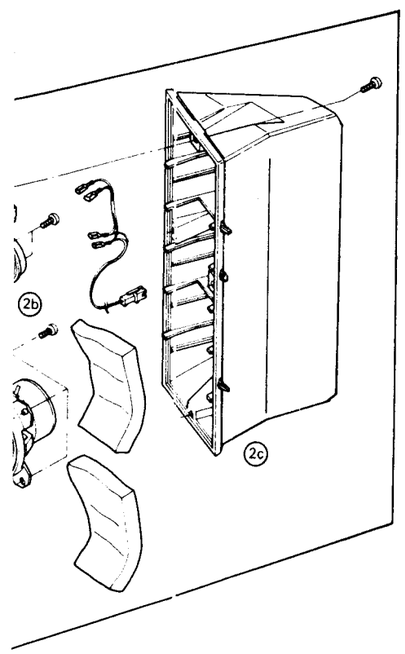


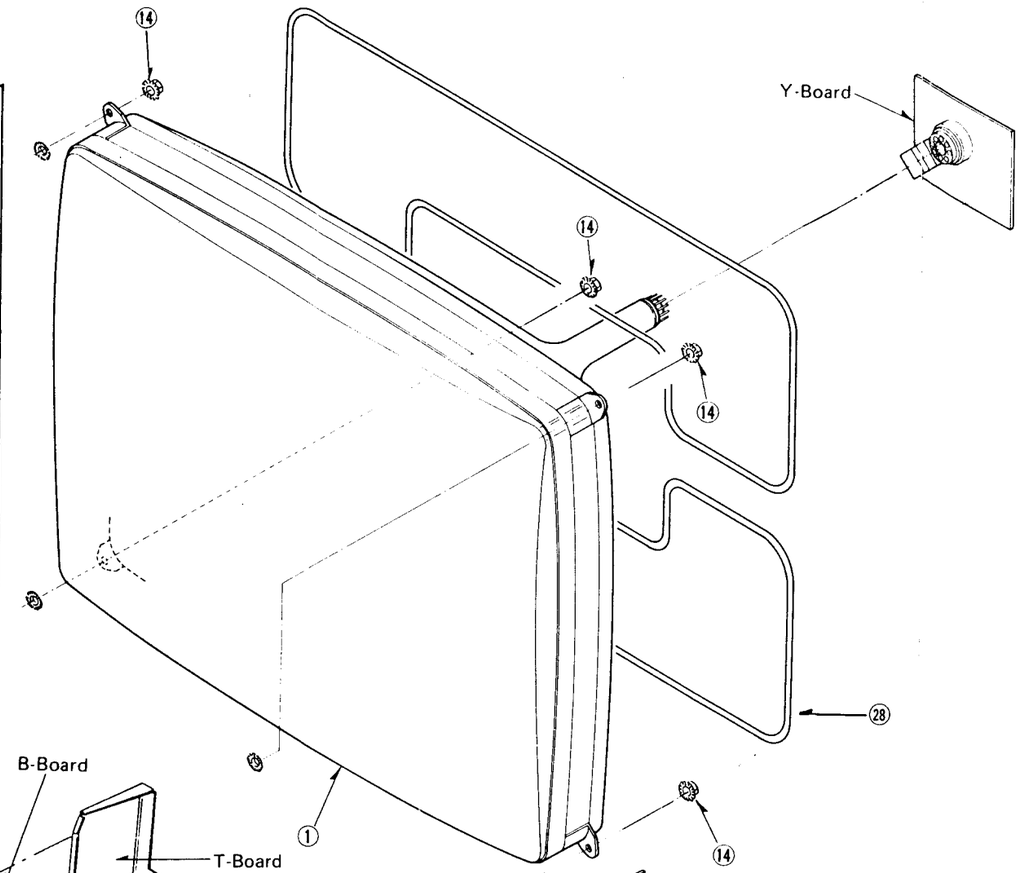


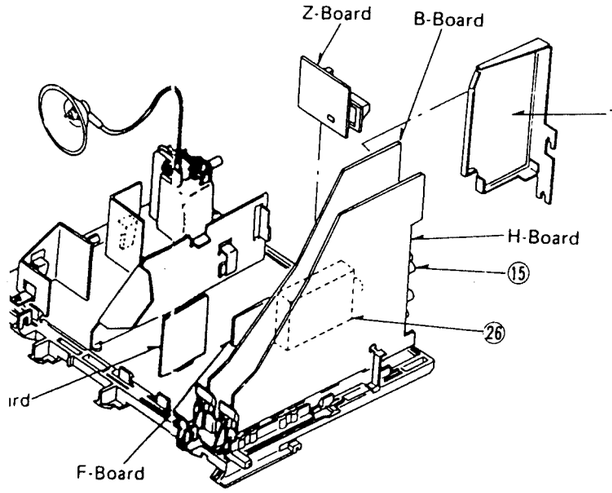


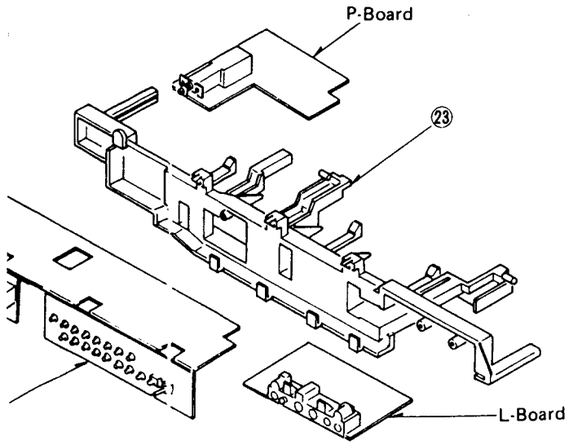


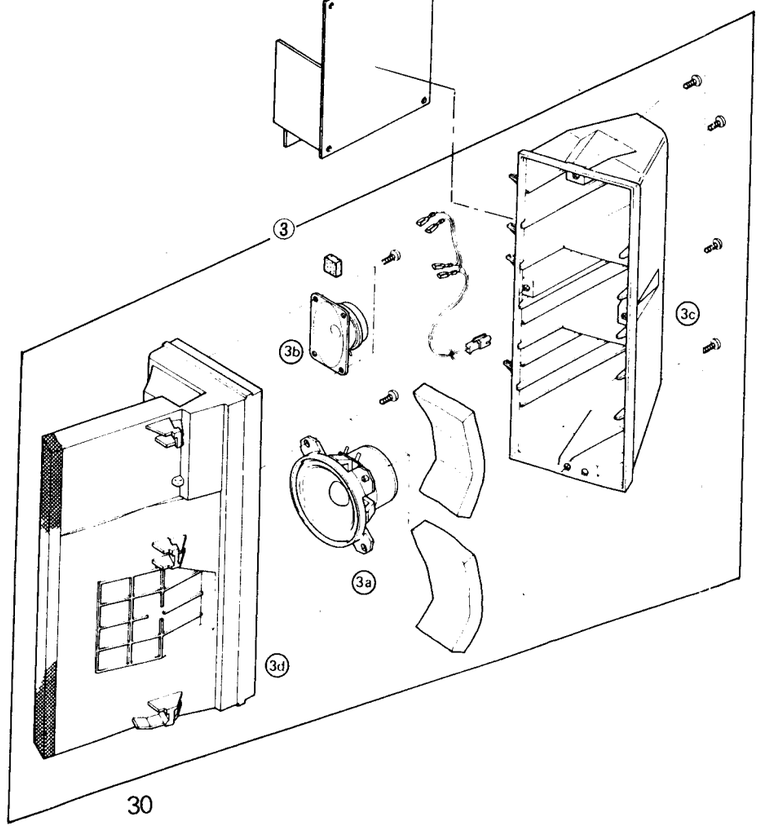


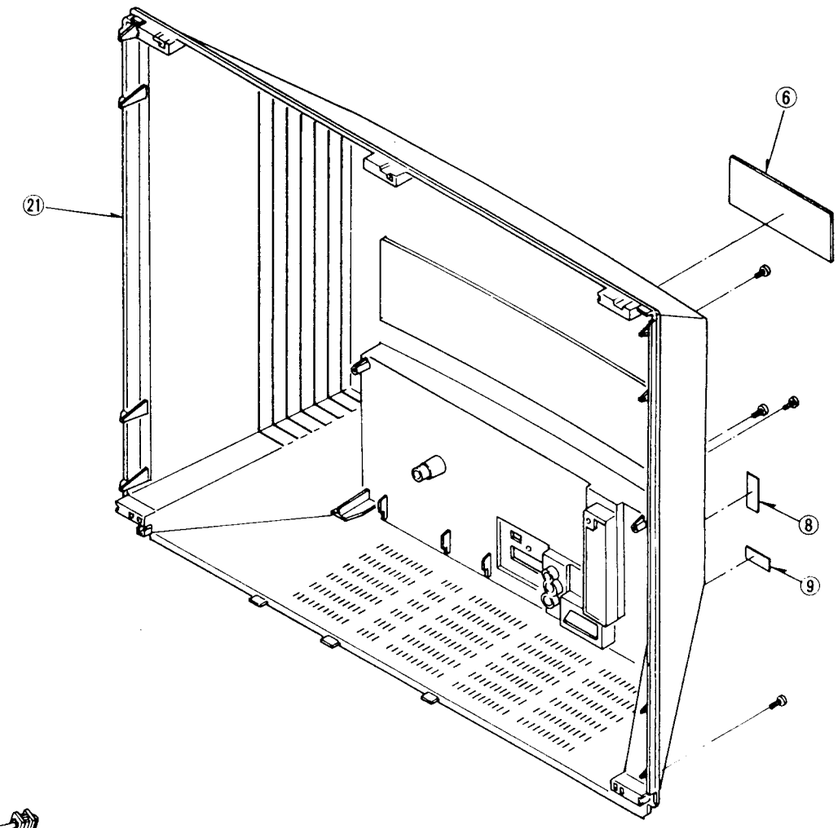

2b
2c

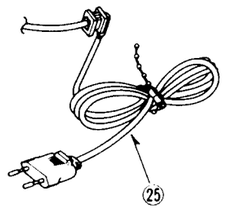

14
Y-Board
14
14
28
1
14


Z-Board
B-Board
T-Board
H-Board
15
26
F-Board


P-Board
23
L-Board


K-Board
3
3b
3c
3a
3d


21
6
8
9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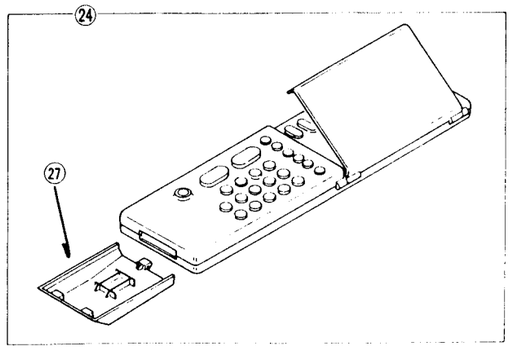
24
27

REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

ERSATZTEILLISTE

Wichtiger Sicherheitshinwels

Teile, die mit einen Hinweis ⚠ gekennzeichnet sind, sind wichtig für die Sicherheit. Sollte ein Auswechsein erforderlich sein, sind unbedingt Originalteile einzusetzen.

Ref No.		Part No.	Description
MISCELLANEOUS COMPONENTS			
1)	⚠	A66EAK22X01	C.R.T.
2)		EAB1076LB	SPEAKER UNIT COMPLETE (L)
or		EAB1064LF	SPEAKER UNIT COMPLETE (L)
2a)		EAS10PL602A	BASS SPEAKER
2b)		EAS7DH02D	TWEETER SPEAKER
2c)		TZS9EH005	SPEAKER ENCLOSURE (BACK L)
2d)		TZS9EH006	SPEAKER ENCLOSURE (FRONT L)
3)		EAB1076RB	SPEAKER UNIT COMPLETE (R)
or		EAB1064RFA	SPEAKER UNIT COMPLETE (R)
3a)		EAS10PL602A	BASS SPEAKER
3b)		EAS7DH02D	TWEETER SPEAKER
3c)		TZS9EH007	SPEAKER ENCLOSURE (BACK R)
3d)		TZS9EH008	SPEAKER ENCLOSURE (FRONT R)
4)		TBL61319	SET FOOT
5)		TBM120885	PRESET LABEL
6)		TBM170199	REAR COVER LABEL
7)		TBM153010	PANASONIC BADGE
8)		TBM179014	ANT. COVER
9)		TBM8E1002-1	AV COVER
10)		TBX2880900	POWER BUTTON
11)		TEK13321	DAMPER
		TMZ159945-1	DAMPER HOLDER
		TMZ159944	DAMPER ARM
12)		TEK17918	LID SWITCH
13)		TES2259	POWER BUTTON SPRING
14)		THN8E001	CRT NUT
15)		TJB17642	AV TERMINAL
16)		TKP1757521	SPEAKER NET
17)		TKP1811071	SMOKED PANEL
18)		TKP1811081	SMOKED PANEL (L)
19)		TKP1811096	CONTROL PANEL LID
20)		TKP1811142	SMOKED PANEL (R)
21)	⚠	TKU581300	REAR COVER
22)	⚠	TKY182201-1	CABINET
23)		TMW27175-1	CONTROL BRACKET
24)		TNQ8E0437	REMOTE CONTROL
25)	⚠	TSX5131	POWER LEAD
26)	⚠	ENV57836G2	TUNER
27)		UR51EC682	BATTERY COVER
28)	⚠	TLK259096N	DEGAUSSING COIL
	⚠	TNP107172AT	K P.C.B.
	⚠	TNP107201AL	B P.C.B.
	⚠	TNP107221AG	Y P.C.B.
	⚠	TNP107395	F P.C.B.
	⚠	TNP107481AG	H P.C.B.
	⚠	TNP107485AB	P P.C.B.
	⚠	TNP107487	M P.C.B.
	⚠	TNP107488AH	L P.C.B.
	⚠	TNP107495AB	Z P.C.B.
	⚠	TNP107553AH	V P.C.B.
	⚠	TNP197052AV	E P.C.B.
		TNP107690	T P.C.B.
		TPC1853006	OUTER CARTON
		TPD8E514	CUSHION (TOP)
		TPD8E515-1	CUSHION (BOTTOM)
		TQB8E0560	OPERATING INST. BOOK
		TBM170201	REMOTE INST. LABEL
		TBX3783600	STEREO-MONO BUTTON
		TKR27790	SILVER CABINET TRIM
DL301		ELB4N040	LUMINANCE DELAY LINE
DL601		EFDEN645A61F	CHROMA DELAY LINE
F801	⚠	2133.15	FUSE
	⚠	520-001	FUSE HOLDER
J234	⚠	TJB17929	ANT. TERMINAL
J2601		TJB118900	21 PIN TERMINAL

DIFFERENCE LIST FOR TX-24A1DT

MISCELLANEOUS COMPONENTS

1)	⚠	A59EAK22X01	CRT
6)		TBM170200	REAR COVER LABEL
16)		TKP1757541	SPEAKER NET
21)	⚠	TKU581600	REAR COVER
22)	⚠	TKY182501	CABINET

Ref No.		Part No.	Description		
	⚠	TNP107172AF	K P.C.B.		
	⚠	TNP107201AP	B P.C.B.		
	⚠	TNP107485AG	P P.C.B.		
		TPC1853706	CARTON		
		TPD8E517	CUSHION (TOP)		
		TPD8E518-1	CUSHION (BOTTOM)		
		TKR27810	SILVER CABINET TRIM		
C802		222233040473	CAPACITOR	400V	47nF
C831		ECKCNS101MBJ	CAPACITOR	1.2KV	100pF
L807		TLQ047K236B	PEAKING COIL		

CAPACITORS

C11	ECEA50Z1	ELECTROLYTIC	50V	1μF
C12	ECEA1CU100	ELECTROLYTIC	16V	10μF
C13	ECKC1H103JB	CERAMIC	50V	10nF
C14	ECEA1CU330	ELECTROLYTIC	16V	33μF
C15	ECEA50Z2R2	ELECTROLYTIC	50V	2.2μF
C19	ECKC1H103JB	CERAMIC	50V	10nF
C26	ECEA1CU470	ELECTROLYTIC	16V	47μF
C27	ECKC1H103JB	CERAMIC	50V	10nF
C28	ECKC1H103JB	CERAMIC	50V	10nF
C29	ECEA16Z10	ELECTROLYTIC	16V	10μF
C30	ECKC1H103JB	CERAMIC	50V	10nF
C31	ECKC1H103JB	CERAMIC	50V	10nF
C32	ECKC1H103JB	CERAMIC	50V	10nF
C70	ECEA1HU010	ELECTROLYTIC	50V	01μF
C71	ECEA1HU100	ELECTROLYTIC	50V	10μF
C105	ECKC1H103JB	CERAMIC	50V	10nF
C106	ECKC1H103JB	CERAMIC	50V	10nF
C108	ECKC1H103JB	CERAMIC	50V	10nF
C109	ECCR1H120J	CERAMIC	50V	12PF
C110	ECKC1H103JB	CERAMIC	50V	10nF
C111	ECEA1CU102	ELECTROLYTIC	16V	1000μF
C112	ECKC1H103JB	CERAMIC	50V	10nF
C113	ECCR1H220J	CERAMIC	50V	22PF
C114	ECKC1H103JB	CERAMIC	50V	10nF
C115	ECKC1H103JB	CERAMIC	50V	10nF
C116	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C117	ECKC1H102J	CERAMIC	50V	1.0nF
C118	ECRLA007A53R	TRIMMER CAPACITOR		7pF
C119	ECCR1H120J	CERAMIC	50V	12PF
C120	ECQM1H333J	PLASTIC FILM	50V	33nF
C121	ECRLA007A53R	TRIMMER CAPACITOR		7pF
C122	ECEA50ZR47	ELECTROLYTIC	50V	0.47μF
C124	ECKC1H103JB	CERAMIC	50V	10nF
C125	ECKC1H103JB	CERAMIC	50V	10nF
C126	ECKC1H103JB	CERAMIC	50V	10nF
C127	ECQM1H153J	PLASTIC FILM	50V	15nF
C128	ECEA1HN010	ELECTROLYTIC	50V	01μF
C129	ECEA1CU470	ELECTROLYTIC	16V	47μF
C130	ECEA1HUR47	ELECTROLYTIC	50V	.47μF
C131	ECKC1H561J	CERAMIC	50V	560pF
C133	ECEA50ZR1	ELECTROLYTIC	50V	0.1μF
C134	ECKC1H103JB	CERAMIC	50V	10nF
C142	ECEA1HNR47	ELECTROLYTIC	50V	.47μF
C143	ECCR1H050J	CERAMIC	50V	05pF
C171	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C172	ECCR1H330J	CERAMIC	50V	33pF
C175	ECQV1H105JZ	PLASTIC FILM	50V	1.0μF
C176	ECKC1H103JB	CERAMIC	50V	10nF
C177	ECEA1AU220	ELECTROLYTIC	10V	22μF
C179	ECQV1H474JZ	PLASTIC FILM	50V	470nF
C184	ECEA1HU010	ELECTROLYTIC	50V	01μF
C187	ECKC1H271J	CERAMIC	50V	270pF
C209	ECEA1CU100	ELECTROLYTIC	16V	10μF
C210	ECEA50ZR22	ELECTROLYTIC	50V	0.22μF
C211	ECEA1CU220	ELECTROLYTIC	16V	22μF
C212	ECKC1H103JB	CERAMIC	50V	10nF
C213	ECKC1H103JB	CERAMIC	50V	10nF
C214	ECEA1EU4R7	ELECTROLYTIC	25V	4.7μF
C216	ECEA50ZR22	ELECTROLYTIC	50V	0.22μF
C217	ECEA1CU222	ELECTROLYTIC	16V	2200μF
C218	ECEA1CU101	ELECTROLYTIC	16V	100μF
C219	ECEA1EU4R7	ELECTROLYTIC	25V	4.7μF

Ref No.	Part No.	Description		
C218	ECEA1CU101	ELECTROLYTIC	16V	100μF
C219	ECEA1EU4R7	ELECTROLYTIC	25V	4.7μF
C281	ECKC1H103JB	CERAMIC	50V	10nF
C282	ECKC1H103JB	CERAMIC	50V	10nF
C291	ECKR1H222KB	CERAMIC	50V	2.2nF
C292	ECKR1H222KB	CERAMIC	50V	2.2nF
C297	ECKC1H103JB	CERAMIC	50V	10nF
C298	ECKC1H103JB	CERAMIC	50V	10nF
C301	ECKC1H103JB	CERAMIC	50V	10nF
C302	ECQM1H153J	PLASTIC FILM	50V	15nF
C308	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C309	ECEA1HU100	ELECTROLYTIC	50V	10μF
C311	ECEA1HUR47	ELECTROLYTIC	50V	.47μF
C312	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C313	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C314	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C323	ECCR1H470J	CERAMIC	50V	47pF
C327	ECCR1H820J	CERAMIC	50V	82pF
C328	ECKC1H103JB	CERAMIC	50V	10nF
C351	ECCR1H271J	CERAMIC	50V	270pF
C352	ECCR1H331J	CERAMIC	50V	330pF
C353	ECCR1H271J	CERAMIC	50V	270pF
C355	ECKC3D152J	CERAMIC	2KV	1.5nF
C357	ECKC2H152J	CERAMIC	500V	1.5nF
C358	ECEA1HU220	ELECTROLYTIC	50V	22μF
C368	ECEA2EU010	ELECTROLYTIC	250V	01μF
C371	ECEA1EU470	ELECTROLYTIC	25V	47μF
C375	ECEA1HUR47	ELECTROLYTIC	50V	.47μF
C376	ECCR1H470J	CERAMIC	50V	47pF
C377	ECCR1H470J	CERAMIC	50V	47pF
C378	ECCR1H470J	CERAMIC	50V	47pF
C401	ECEA1HUR33	ELECTROLYTIC	50V	.33μF
C402	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C403	ECKC1H103JB	CERAMIC	50V	10nF
C452	ECKC2H122J	CERAMIC	500V	1.2nF
C453	ECQM1H333J	PLASTIC FILM	50V	33nF
C455	ECEA1HGE101	ELECTROLYTIC	50V	E1μF
C456	ECEA1VGE222	ELECTROLYTIC	35V	2200μF
C457	ECQV1H394JZ	PLASTIC FILM	50V	390nF
C458	ECEA1VU332	ELECTROLYTIC	35V	3300μF
C459	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C460	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C462	ECQM1H223J	PLASTIC FILM	50V	22nF
C465	ECQV1H474JZ	PLASTIC FILM	50V	470nF
C466	ECEA25Z4R7	ELECTROLYTIC	25V	4.7μF
C467	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C501	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C502	ECQP1152GZ	PLASTIC FILM	100V	1.5nF
C503	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C504	ECEA1CU102	ELECTROLYTIC	16V	1000μF
C505	ECKC1H101J	CERAMIC	50V	100pF
C506	ECEA1HU220	ELECTROLYTIC	50V	22μF
C507	ECEA1HU4R7	ELECTROLYTIC	50V	4.7μF
C510	ECQM1H682J	PLASTIC FILM	50V	6.8nF
C515	ECQM1H122J	PLASTIC FILM	50V	1.2nF
C517	ECQV1H154JZ	PLASTIC FILM	50V	150nF
C518	ECEA1CU100	ELECTROLYTIC	16V	10μF
C519	ECEA1CU330	ELECTROLYTIC	16V	33μF
C520	ECEA1VU4R7	ELECTROLYTIC	35V	4.7μF
C522	ECEA1CN100	ELECTROLYTIC	16V	10μF
C525	ECEA1CU470	ELECTROLYTIC	16V	47μF
C531	ECQM1103KZ	PLASTIC FILM	100V	10nF
C541	ECEA1HU2R2	ELECTROLYTIC	50V	2.2μF
C542	ECEA1JU100	ELECTROLYTIC	63V	10μF
C543	ECEA1CU100	ELECTROLYTIC	16V	10μF
C551	ECEA2VG010	ELECTROLYTIC	350V	01μF
C552	ECWF2H824JZ	POLYPROPYLENE	200V	820nF
C553	ECEA2CS4R7	ELECTROLYTIC	160V	4.7μF
C554	ECEA2ES100	ELECTROLYTIC	250V	10μF
C555	ECKC2H471J	CERAMIC	500V	470pF
C556	ECKC3F102J	CERAMIC	3KV	1.0nF
C558	ECWH12H822J	CERAMIC	500V	8.2nF
C560	ECWF2H334JZ	POLYPROPYLENE	200V	330nF
C561	ECKC3D561J	CERAMIC	2KV	560pF
C566	ECKC2H471J	CERAMIC	500V	470pF
C576	ECEA1CGE471	ELECTROLYTIC	16V	470μF
C602	ECQM1H223J	PLASTIC FILM	50V	22nF
C603	ECQM1H223J	PLASTIC FILM	50V	22nF
C604	ECQM1H223J	PLASTIC FILM	50V	22nF
C606	ECCR1H680J	CERAMIC	50V	68pF
C607	ECEA1HU010	ELECTROLYTIC	50V	01μF
C608	ECCR1H121J	CERAMIC	50V	120pF
C609	ECCR1H220J	CERAMIC	50V	22pF
C610	ECCR1H220J	CERAMIC	50V	22pF
C611	ECCR1H221J	CERAMIC	50V	220pF
C612	ECKC1H103JB	CERAMIC	50V	10nF
C613	ECKC1H103JB	CERAMIC	50V	10nF
C615	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C617	ECCR1H680J	CERAMIC	50V	68pF
C618	ECCR1H221J	CERAMIC	50V	220pF

Ref No.	Part No.	Description		
C619	ECCR1H121J	CERAMIC	50V	120pF
C620	ECKC1H222J	CERAMIC	50V	2.2nF
C621	ECQM1H473J	PLASTIC FILM	50V	47nF
C622	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C623	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C624	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C626	ECKC1H103JB	CERAMIC	50V	10nF
C627	ECEA1CU221	ELECTROLYTIC	16V	220μF
C629	ECQM1H223J	PLASTIC FILM	50V	22nF
C630	ECKC1H102J	CERAMIC	50V	1.0nF
C631	ECCR1H220J	CERAMIC	50V	22pF
C632	ECCR1H121J	CERAMIC	50V	120pF
C634	ECCR1H391J	CERAMIC	50V	390pF
C635	ECKC1H472J	CERAMIC	50V	4.7nF
C636	ECKC1H472J	CERAMIC	50V	4.7nF
C637	ECRLA030E53R	TRIMMER CAPACITOR		30pF
C638	ECEA1HU010	ELECTROLYTIC	50V	01μF
C639	ECQM1H223J	PLASTIC FILM	50V	22nF
C642	ECKC1H103JB	CERAMIC	50V	10nF
C644	ECKC1H103JB	CERAMIC	50V	10nF
C651	ECEA1HUR33	ELECTROLYTIC	50V	.33μF
C652	ECEA1HUR33	ELECTROLYTIC	50V	.33μF
C653	ECCR1H101J	CERAMIC	50V	100pF
C654	ECCR1H101J	CERAMIC	50V	100pF
C655	ECKC1H331J	CERAMIC	50V	330pF
C656	ECKC1H471J	CERAMIC	50V	470pF
C657	ECQM1H223J	PLASTIC FILM	50V	22nF
C658	ECQM1H223J	PLASTIC FILM	50V	22nF
C659	ECKC1H471J	CERAMIC	50V	470pF
C661	ECEA1CN220	ELECTROLYTIC	16V	22μF
C662	ECKC1H332J	CERAMIC	50V	3.3nF
C663	ECEA1EU470	ELECTROLYTIC	25V	47μF
C664	ECKC1H101J	CERAMIC	50V	100pF
C665	ECKC1H101J	CERAMIC	50V	100pF
C671	ECCR1H820J	CERAMIC	50V	82pF
C681	ECEA1HN010	ELECTROLYTIC	50V	01μF
C682	ECCR1H270J	CERAMIC	50V	27pF
C683	ECCR1H101J	CERAMIC	50V	100pF
C684	ECQV1H105JZ	PLASTIC FILM	50V	1.0μF
C685	ECEA1EN3R3	ELECTROLYTIC	25V	3.3μF
C751	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C752	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C753	ECQM10223JZ	PLASTIC FILM	1KV	⚠ 22nF
C754	ECCR1H181J	CERAMIC	50V	180pF
C755	ECEA1VU470	ELECTROLYTIC	35V	47μF
C756	ECEA1EU221	ELECTROLYTIC	25V	220μF
C758	ECQM1225KNB	PLASTIC FILM	100V	2.2μF
C760	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C801	222233040334	CAPACITOR	400V	0.33μF
C803	ECKC2H472J	CERAMIC	500V	4.7nF
C804	ECKC2H472J	CERAMIC	500V	4.7nF
C805	ECKC2H472J	CERAMIC	500V	4.7nF
C806	ECKC2H472J	CERAMIC	500V	4.7nF
C807	ECOS2GA221CA	ELECTROLYTIC	400V	220μF
C808	ECEA1HFS100	ELECTROLYTIC	50V	S1μF
C809	ECQV1H334JZ	PLASTIC FILM	50V	330nF
C810	ECKC2H103J	CERAMIC	500V	10nF
C811	ECKC3A821J	CERAMIC	1KV	820pF
C812	ECKC3A471J	CERAMIC	1KV	470pF
C813	ECKCNS222KB	CERAMIC	4KV	2.2nF
C815	ECKC2H471J	CERAMIC	500V	470pF
C816	ECQM6473KZ	PLASTIC FILM	600V	47nF
C817	ECKC1H471J	CERAMIC	50V	470pF
C820	ECKC3A102J	CERAMIC	1KV	1.0nF
C851	ECKC3A152J	CERAMIC	1KV	1.5nF
C852	ECKC2H681J	CERAMIC	500V	680pF
C853	ECKC2H561J	CERAMIC	500V	560pF
C854	ECEA2EG101	ELECTROLYTIC	250V	100μF
C855	ECEA1VGE101	ELECTROLYTIC	35V	E1μF
C856	ECEA1HV471	ELECTROLYTIC	50V	470μF
C857	ECKC2H471J	CERAMIC	500V	470pF
C858	ECEA1EGE102	ELECTROLYTIC	25V	E1μF
C859	ECEA1EGE100	ELECTROLYTIC	25V	E1μF
C860	ECKC1H103JB	CERAMIC	50V	10nF
C861	ECEA1CGE101	ELECTROLYTIC	16V	E1μF
C863	ECQV1H105JZ	PLASTIC FILM	50V	1.0μF
C1101	ECEA16Z10	ELECTROLYTIC	16V	10μF
C1102	ECEA1CU100	ELECTROLYTIC	16V	10μF
C1103	ECEA1CU100	ELECTROLYTIC	16V	10μF
C1104	ECQM1H392J	PLASTIC FILM	50V	3.9nF
C1105	ECQM1H333J	PLASTIC FILM	50V	33nF
C1106	ECQP1392JZ	PLASTIC FILM	100V	3.9nF
C1107	ECEA0JU101	ELECTROLYTIC	6.3V	100μF
C1201	ECKC1H103JB	CERAMIC	50V	10nF
C1202	ECQM1H272J	PLASTIC FILM	50V	2.7nF
C1203	ECEA0JU101	ELECTROLYTIC	6.3V	100μF
C1204	ECQM1H333J	PLASTIC FILM	50V	33nF
C1205	ECKC1H103JB	CERAMIC	50V	10nF
		(ON M PCB)		
C1205	ECQV1H104JZ	PLASTIC FILM	50V	100nF

Ref No.	Part No.	Description		
		(ON E PCB)		
C1206	ECEA1CGE102	ELECTROLYTIC	16V	E1μF
C1207	ECCR1H150J	CERAMIC	50V	15pF
C1208	ECCR1H270J	CERAMIC	50V	27pF
C1214	ECEA0JGE221	ELECTROLYTIC	6.3V	200μF
C1221	ECKC1H103JB	CERAMIC	50V	10nF
C1222	ECEA50Z1R5	ELECTROLYTIC	50V	1.5μF
C1223	ECQM1H563J	PLASTIC FILM	50V	56nF
C1226	ECKC1H103JB	CERAMIC	50V	10nF
C1227	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C1246	ECEA1CU100	ELECTROLYTIC	16V	10μF
C1248	ECQM1H333J	PLASTIC FILM	50V	33nF
C1310	ECEA1CU100	ELECTROLYTIC	16V	10μF
C1311	ECEA1CU101	ELECTROLYTIC	16V	100μF
C1313	ECEA1CU100	ELECTROLYTIC	16V	10μF
C1314	ECEA1HU2R2	ELECTROLYTIC	50V	2.2μF
C2101	ECKC1H103JB	CERAMIC	50V	10nF
C2102	ECKC1H101J	CERAMIC	50V	100pF
C2104	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2105	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2106	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2107	ECKC1H103JB	CERAMIC	50V	10nF
C2108	ECEA50ZR47	ELECTROLYTIC	50V	0.47μF
C2109	ECQM1H103J	PLASTIC FILM	50V	10nF
C2110	ECEA1HU010	ELECTROLYTIC	50V	01μF
C2111	ECQM1H103J	PLASTIC FILM	50V	10nF
C2112	ECEA1CU330	ELECTROLYTIC	16V	33μF
C2113	ECKC1H103JB	CERAMIC	50V	10nF
C2114	ECEA1HUR47	ELECTROLYTIC	50V	.47μF
C2115	ECCR1H150J	CERAMIC	50V	15pF
C2116	ECKC1H103JB	CERAMIC	50V	10nF
C2117	ECKC1H102J	CERAMIC	50V	1.0nF
C2120	ECQM1H103J	PLASTIC FILM	50V	10nF
C2122	ECQM1H103J	PLASTIC FILM	50V	10nF
C2123	ECCR1H331J	CERAMIC	50V	330pF
C2125	ECCR1H561J	CERAMIC	50V	560pF
C2126	ECQM1H393J	PLASTIC FILM	50V	39nF
C2127	ECCR1H470J	CERAMIC	50V	47pF
C2128	ECKC1H103JB	CERAMIC	50V	10nF
C2129	ECEA1CU330	ELECTROLYTIC	16V	33μF
C2130	ECKC1H103JB	CERAMIC	50V	10nF
C2132	ECKC1H103JB	CERAMIC	50V	10nF
C2134	ECKC1H103JB	CERAMIC	50V	10nF
C2140	ECKC1H103JB	CERAMIC	50V	10nF
C2141	ECCR1H090J	CERAMIC	50V	09pF
C2142	ECCR1H271J	CERAMIC	50V	270pF
C2149	ECCR1H100J	CERAMIC	50V	10pF
C2150	ECKC1H103JB	CERAMIC	50V	10nF
C2151	ECKC1H103JB	CERAMIC	50V	10nF
C2152	ECKC1H103JB	CERAMIC	50V	10nF
C2153	ECEA1CU220	ELECTROLYTIC	16V	22μF
C2154	ECKC1H103JB	CERAMIC	50V	10nF
C2155	ECKC1H103JB	CERAMIC	50V	10nF
C2156	ECEA1CU221	ELECTROLYTIC	16V	220μF
C2157	ECEA1HNR47	ELECTROLYTIC	50V	.47μF
C2158	ECKC1H103JB	CERAMIC	50V	10nF
C2159	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2160	ECEA1CU221	ELECTROLYTIC	16V	220μF
C2161	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2162	ECKC1H103JB	CERAMIC	50V	10nF
C2163	ECRLA020E53R	TRIMMER CAPACITOR		20pF
C2164	ECCR1H180J	CERAMIC	50V	18pF
C2165	ECKC1H103JB	CERAMIC	50V	10nF
C2166	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2167	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2168	ECKC1H103JB	CERAMIC	50V	10nF
C2169	ECKC1H103JB	CERAMIC	50V	10nF
C2170	ECKC1H103JB	CERAMIC	50V	10nF
C2201	ECQM1H102J	PLASTIC FILM	50V	1.0nF
C2202	ECQM1H822J	PLASTIC FILM	50V	8.2nF
C2203	ECQM1H273J	PLASTIC FILM	50V	27nF
C2204	ECQM1H102J	PLASTIC FILM	50V	1.0nF
C2205	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2206	ECEA50ZR47	ELECTROLYTIC	50V	0.47μF
C2207	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C2208	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2209	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C2210	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C2211	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2212	ECKC1H103JB	CERAMIC	50V	10nF
C2213	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2216	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2217	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2218	ECQM1H473J	PLASTIC FILM	50V	47nF
C2219	ECEA1CN470	ELECTROLYTIC	16V	47μF
C2220	ECQV1H474JZ	PLASTIC FILM	50V	470nF
C2221	ECQP1562JZ	PLASTIC FILM	100V	5.6nF
C2222	ECQM1H223J	PLASTIC FILM	50V	22nF
C2223	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2224	ECCR1H120J	CERAMIC	50V	12pF

Ref No.	Part No.	Description		
C2225	ECQM1H102J	PLASTIC FILM	50V	1.0nF
C2226	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2227	ECEA1CN470	ELECTROLYTIC	16V	47μF
C2231	ECEA1EN3R3	ELECTROLYTIC	25V	3.3μF
C2232	ECEA1CN470	ELECTROLYTIC	16V	47μF
C2237	ECKC1H103JB	CERAMIC	50V	10nF
C2238	ECEA1HU010	ELECTROLYTIC	50V	01μF
C2239	ECKC1H103JB	CERAMIC	50V	10nF
C2240	ECEA1HU010	ELECTROLYTIC	50V	01μF
C2241	ECEA1HN010	ELECTROLYTIC	50V	01μF
C2242	ECEA1HN010	ELECTROLYTIC	50V	01μF
C2246	ECEA1CN470	ELECTROLYTIC	16V	47μF
C2247	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2248	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2252	ECKC1H103JB	CERAMIC	50V	10nF
C2303	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2304	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2305	ECQM1H392J	PLASTIC FILM	50V	3.9nF
C2306	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2307	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2308	ECQM1H103J	PLASTIC FILM	50V	10nF
C2309	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C2310	ECQM1H103J	PLASTIC FILM	50V	10nF
C2311	ECEA1CU471	ELECTROLYTIC	16V	470μF
C2321	ECQM1H392J	PLASTIC FILM	50V	3.9nF
C2322	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2326	ECQV1H124JZ	PLASTIC FILM	50V	120nF
C2327	ECQM1H103J	PLASTIC FILM	50V	10nF
C2328	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2351	ECQM1H183J	PLASTIC FILM	50V	18nF
C2352	ECQM1H183J	PLASTIC FILM	50V	18nF
C2353	ECEA1HGNR47	ELECTROLYTIC	50V	0.47μF
C2354	ECEA1HGNR47	ELECTROLYTIC	50V	0.47μF
C2355	ECEA1EGE221	ELECTROLYTIC	25V	220μF
C2356	ECEA1EGE221	ELECTROLYTIC	25V	220μF
C2357	ECEA1VGE470	ELECTROLYTIC	35V	47μF
C2358	ECEA1VGE470	ELECTROLYTIC	35V	47μF
C2359	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2360	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2361	ECEA1HGE102	ELECTROLYTIC	50V	1000μF
C2362	ECEA1HGE102	ELECTROLYTIC	50V	1000μF
C2363	ECEA1HGE010	ELECTROLYTIC	50V	1μF
C2364	ECEA1VGE470	ELECTROLYTIC	35V	47μF
C2365	ECEA1HGE101	ELECTROLYTIC	50V	100μF
C2366	ECQM1H823J	PLASTIC FILM	50V	82nF
C2367	ECQM1H823J	PLASTIC FILM	50V	82nF
C2368	ECEA1HU472	ELECTROLYTIC	50V	4700μF
C2369	ECEA1HGE102	ELECTROLYTIC	50V	1000μF
C2370	ECQM1H273J	PLASTIC FILM	50V	27nF
C2371	ECQM1H273J	PLASTIC FILM	50V	27nF
C2372	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2373	ECQM1H472J	PLASTIC FILM	50V	4.7nF
C2382	ECKC1H102J	CERAMIC	50V	1.0nF
C2401	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2410	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2411	ECEA1HN4R7	ELECTROLYTIC	50V	4.7μF
C2412	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2413	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2414	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2415	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2416	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2417	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2418	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2419	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2421	ECKC1H103JB	CERAMIC	50V	10nF
C2423	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2424	ECKC1H103JB	CERAMIC	50V	10nF
C2425	ECEA1CU471	ELECTROLYTIC	16V	470μF
C2426	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2427	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2428	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2429	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2430	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2431	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2432	ECEA1CU221	ELECTROLYTIC	16V	220μF
C2433	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2434	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2435	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2437	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2438	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2439	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2441	ECCR1H101J	CERAMIC	50V	100pF
C2442	ECCR1H101J	CERAMIC	50V	100pF
C2444	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2445	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2446	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2447	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2448	ECEA1HN010	ELECTROLYTIC	50V	1μF
C2449	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2450	ECEA1HN010	ELECTROLYTIC	50V	1μF

Ref No.	Part No.	Description
D2162	MA4051	DIODE
D2201	MA700TA5	DIODE
D2202	MA165TA5	DIODE
D2203	MA165TA5	DIODE
D2204	MA700TA5	DIODE
D2205	MA165TA5	DIODE
D2207	MA165TA5	DIODE
D2209	MA165TA5	DIODE
D2211	MA165TA5	DIODE
D2215	MA700TA5	DIODE
D2216	MA700TA5	DIODE
D2304	MA165TA5	DIODE
D2351	TVSRD13FB	DIODE
D2402	MA165TA5	DIODE
D2405	MA165TA5	DIODE
D2406	MA165TA5	DIODE
D2408	MA165TA5	DIODE
D2409	MA165TA5	DIODE
D2410	MA165TA5	DIODE
D2411	MA165TA5	DIODE
D2603	MA165TA5	DIODE
D2605	MA165TA5	DIODE
D2607	MA165TA5	DIODE
D2610	MA150TA	DIODE
D2612	MA165TA5	DIODE
D2614	MA165TA5	DIODE
D2615	MA700TA5	DIODE
D2628	MA858TA5	DIODE
D2629	MA165TA5	DIODE
D3502	MA165TA5	DIODE
D3503	MA165TA5	DIODE
D3504	MA165TA5	DIODE
D3505	MA165TA5	DIODE
D3516	MA165TA5	DIODE
D3517	MA165TA5	DIODE
D3527	MA4082	DIODE
D3528	MA165TA5	DIODE
D3529	MA165TA5	DIODE
D3530	MA165TA5	DIODE
D3543	MA165TA5	DIODE
D3545	MA700TA5	DIODE

I.C.s

IC70	UPC574J	REGULATOR
IC101	M51367SP	V. I. F.
IC171	SAB3035	CITAC
IC201	AN5836	AUDIO CONTROL
IC451	AN5521	I. C.
IC501	TDA2579A	SYNC CIRCUIT
IC601	TDA4555	MULTI STANDARD DECODER
IC602	TDA3505	VIDEO CONTROL
IC651	TDA4565	C. T. I.
IC801	STR54041-M	REGULATOR
IC851	L78M12MRB	12V REGULATOR
IC1101	UPC1474HA	I. R. RECEIVER
IC1202	PCD8582	MEMORY
IC1203	MAB8461PW134	MICROPROCESSOR
IC1204	L78M05MRB	5V REGULATOR
IC1205	SAA1064	DISPLAY DRIVER
IC2101	AN5136K	BILINGUAL DECODER
IC2102	AN5215	S. I. F.
IC2151	TDA2543	SECAM S. I. F.
IC2170	TC4011BP	SWITCH
IC2201	TDA3803A	MATRIX
IC2270	UPD4066BC	SWITCH
IC2271	L78M12MRB	12V REGULATOR
IC2272	TC4023BP	SWITCH
IC2302	TDA3810	AMBIENCE CONTROL
IC2351	STK4392TV	AUDIO AMPLIFIER
IC2401	M51321P	SWITCHING
IC2402	L78M12MRB	12V REGULATOR
IC2403	UPD4066BC	SWITCH
IC2601	M51326P	TV/AV SWITCH
IC3501	SAA5231	TELETEXT VIP
IC3502	SAA5243P-E	CHARACTER GENERATOR
IC3505	L78M05MRB	5V REGULATOR
IC3506	M68400P-12L	64K RAM MEMORY
IC3507	PCB80C652	I. C.
IC3508	27C256-20N	I. C.
IC3509	PC74HC373P	I. C.

COILS

L12	TLT082L991R	COIL
L16	TLT082L991R	COIL
L17	TLT082L991R	COIL
L18	TLT082L991R	COIL

Ref No.	Part No.	Description
L104	TLT120K991R	COIL
L105	EIV7EN027B	COIL
L107	EIV1EG040B	TRANSFORMER
L109	TLT560K991R	COIL
L120	TLT082L991R	COIL
L121	TLT100K991R	COIL
L171	TLT082L991R	COIL
L175	EXCELDR35V	COIL
L176	EXCELDR35V	COIL
L251	TLS159054E	COIL
L252	TLS159054E	COIL
L253	TLS159054E	COIL
L281	TLS159054E	COIL
L282	TLS159054E	COIL
L283	TLS159054E	COIL
L284	TLS159054E	COIL
L303	TLT100K991R	COIL
L351	TLT181K991R	COIL
L352	TLT181K991R	COIL
L353	TLT181K991R	COIL
L354	TLT047L991R	COIL
L355	EXCELDR35V	COIL
L356	EXCELDR35V	COIL
L357	EXCELDR35V	COIL
L451	TLT082L991R	COIL
L552	ELC08D055	COIL
L553	ELH5L403	COIL
L554	ELC12B004	COIL
L555	TSC937	CHOKE
L602	TLT082K991R	COIL
L603	TLK158066	COIL
L605	EIK7EG013B	COIL
L606	EIK7EG013B	COIL
L607	EIK7EG012B	COIL
L609	EIK7EG011B	COIL
L681	TLT220K991R	COIL
L682	TLT390K991R	COIL
L752	ELC10D006	COIL
L801	ELF18D650L	FILTER
L802	ELF18D650L	FILTER
L803	TSC930-4	CHOKE
L804	TSC930-4	CHOKE
L806	TSC930-4	CHOKE
L808	TLT101K991R	COIL
L809	TLQ047K236B	COIL
L852	EXCELDR35V	COIL
L853	TLT030L119C	COIL
L855	TSC925-4	CHOKE
L857	TSC930-4	CHOKE
L1101	TLT542K991K	COIL
L1102	EIR7QG001B	COIL
L1201	TLQ082K236T	COIL
L1202	TLQ082K236T	COIL
L1211	TLQ082K236T	COIL
L2101	EIV7EN036B	TRANSFORMER
L2104	EIS7EN009B	TRANSFORMER
L2105	EIS7EN009B	TRANSFORMER
L2106	TLI157X55	COIL
L2113	TLT120K991R	COIL
L2151	EIV7EN029B	COIL
L2152	TLT150K991R	COIL
L2153	TLT150K991R	COIL
L2201	EIR7QG017B	COIL
L2202	TLT102K991R	COIL
L2203	EIS7EG015B	COIL
L2205	TSC930-4	CHOKE
L2231	TLT560K991R	COIL
L2232	TLT392J993R	COIL
L2301	TLT100K991R	COIL
L2451	EXCELDR35V	COIL
L2452	EXCELDR35V	COIL
L2603	TLT220K991R	COIL
L2604	TLT220K991R	COIL
L3501	TLT150K991R	COIL
L3502	TLT100K991R	COIL
L3503	TLT047K991R	COIL
L3505	TLT100K991R	COIL
LC601	ELB4K102	COIL
LC2230	ELB5A074	COIL

TRANSISTORS

Q103	2SC1215TA	TRANSISTOR
Q104	UN4211TA	TRANSISTOR
Q105	2SC1685-TA	TRANSISTOR
Q201	UN4111TA	TRANSISTOR
Q202	UN4211TA	TRANSISTOR
Q304	2SC3311ATA	TRANSISTOR
Q306	UN4211TA	TRANSISTOR

Ref No.	Part No.	Description		
C2453	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2456	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2461	ECEA1HU2R2	ELECTROLYTIC	50V	2.2μF
C2462	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2463	ECEA1CU101	ELECTROLYTIC	16V	100μF
C2464	ECKC1H103JB	CERAMIC	50V	10nF
C2465	ECKR1H222KB	CERAMIC	50V	2.2nF
C2466	ECKR1H222KB	CERAMIC	50V	2.2nF
C2467	ECKR1H222KB	CERAMIC	50V	2.2nF
C2468	ECKR1H222KB	CERAMIC	50V	2.2nF
C2469	ECKC1H222J	CERAMIC	50V	2.2nF
C2470	ECKC1H222J	CERAMIC	50V	2.2nF
C2601	ECKC1H103JB	CERAMIC	50V	10nF
C2602	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2603	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2606	ECEA1CU471	ELECTROLYTIC	16V	470μF
C2607	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2608	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C2609	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2610	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2611	ECEA1CU470	ELECTROLYTIC	16V	47μF
C2612	ECEA1CN100	ELECTROLYTIC	16V	10μF
C2613	ECEA1CU471	ELECTROLYTIC	16V	470μF
C2614	ECKC1H271J	CERAMIC	50V	270pF
C2619	ECKC1H471J	CERAMIC	50V	470pF
C2621	ECKC1H222J	CERAMIC	50V	2.2nF
C2622	ECKC1H222J	CERAMIC	50V	2.2nF
C2623	ECKR1H222KB	CERAMIC	50V	2.2nF
C2624	ECKR1H222KB	CERAMIC	50V	2.2nF
C2627	ECEA1EN4R7	ELECTROLYTIC	25V	4.7μF
C2628	ECEA1CU100	ELECTROLYTIC	16V	10μF
C2629	ECEA1CN220	ELECTROLYTIC	16V	22μF
C3502	ECCR1H150J	CERAMIC	50V	15pF
C3503	ECKC1H102J	CERAMIC	50V	1.0nF
C3504	ECKC1H471J	CERAMIC	50V	470pF
C3505	ECQM1H223J	PLASTIC FILM	50V	22nF
C3506	ECKC1H271J	CERAMIC	50V	270pF
C3507	ECCR1H101J	CERAMIC	50V	100pF
C3508	ECCR1H150J	CERAMIC	50V	15pF
C3509	ECCR1H270J	CERAMIC	50V	27pF
C3510	ECQM1H683J	PLASTIC FILM	50V	68nF
C3511	ECCR1H221J	CERAMIC	50V	220pF
C3512	ECQM1H473J	PLASTIC FILM	50V	47nF
C3513	ECEA1CU100	ELECTROLYTIC	16V	10μF
C3515	ECQM1H473J	PLASTIC FILM	50V	47nF
C3516	ECQV1H224JZ	PLASTIC FILM	50V	220nF
C3517	ECKC1H103JB	CERAMIC	50V	10nF
C3521	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3522	ECEA1HU2R2	ELECTROLYTIC	50V	2.2μF
C3523	ECEA0JU101	ELECTROLYTIC	6.3V	100μF
C3524	ECEA0JU222	ELECTROLYTIC	6.3V	2200μF
C3525	ECEA1CU470	ELECTROLYTIC	16V	47μF
C3526	ECKC1H103JB	CERAMIC	50V	10nF
C3527	ECCR1H180J	CERAMIC	50V	18pF
C3528	ECRLA020E53R	TRIMMER CAPACITOR		20pF
C3532	ECKC1H103JB	CERAMIC	50V	10nF
C3533	ECQM1H223J	PLASTIC FILM	50V	22nF
C3534	ECEA1CU220	ELECTROLYTIC	16V	22μF
C3536	ECKC1H103JB	CERAMIC	50V	10nF
C3550	ECEA1HN010	ELECTROLYTIC	50V	01μF
C3552	ECKC1H103JB	CERAMIC	50V	10nF
C3553	ECEA1CU221	ELECTROLYTIC	16V	220μF
C3554	ECCR1H100J	CERAMIC	50V	10pF
C3555	ECEA1CN330	ELECTROLYTIC	16V	33μF
C3556	ECCR1H100J	CERAMIC	50V	10pF
C3558	ECRBA160N11	TRIMMER CAPACITOR		160pF
C3559	ECCR1H560J	CERAMIC	50V	56pF
C3565	ECCR1H070J	CERAMIC	50V	07pF
C3566	ECKC1H821J	CERAMIC	50V	820pF
C3567	ECKC1H821J	CERAMIC	50V	820pF
C3568	ECKC1H821J	CERAMIC	50V	820pF
C3570	ECEA0JU471	ELECTROLYTIC	6.3V	470μF
C3576	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3577	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3578	ECKC1H103JB	CERAMIC	50V	10nF
C3579	ECEA0JU101	ELECTROLYTIC	6.3V	100μF
C3580	ECKC1H103JB	CERAMIC	50V	10nF
C3581	ECEA1HU010	ELECTROLYTIC	50V	01μF
C3582	ECEA0JU471	ELECTROLYTIC	6.3V	470μF
C3583	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3584	ECEA0JU101	ELECTROLYTIC	6.3V	100μF
C3585	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3586	ECQV1H104JZ	PLASTIC FILM	50V	100nF
C3587	ECCR1H330J	CERAMIC	50V	33pF
C3588	ECCR1H270J	CERAMIC	50V	27pF

DIODES

Ref No.	Part No.	Description
D102	MA858TA5	DIODE
D103	MA858TA5	DIODE
D171	MA4082	DIODE
D174	MA165TA5	DIODE
D177	MA150TA	DIODE
D179	MA4047	DIODE
D181	MA4082	DIODE
D182	MA4082	DIODE
D201	MA165TA5	DIODE
D202	MA165TA5	DIODE
D203	MA165TA5	DIODE
D204	MA165TA5	DIODE
D205	MA165TA5	DIODE
D206	MA165TA5	DIODE
D303	MA165TA5	DIODE
D305	MA4130	DIODE
D306	MA4130	DIODE
D307	MA4130	DIODE
D313	MA27TA5	DIODE
D314	MA4033	DIODE
D319	MA165TA5	DIODE
D320	MA165TA5	DIODE
D321	MA165TA5	DIODE
D328	MA4056	DIODE
D329	MA1033MTA	DIODE
D330	MA858TA5	DIODE
D403	MA27TA5	DIODE
D451	ERA15-02V3	DIODE
D452	MA165TA5	DIODE
D453	MA165TA5	DIODE
D501	ERA15-02V3	DIODE
D505	MA165TA5	DIODE
D508	MA4051	DIODE
D510	MA165TA5	DIODE
D511	MA4047	DIODE
D541	MA4360	DIODE
D551	ERA22-02V3	DIODE
D552	MA167TA5	DIODE
D554	ERA22-02V3	DIODE
D603	MA4056	DIODE
D604	MA858TA5	DIODE
D671	MA858TA5	DIODE
D754	TVSRU2AM	DIODE
D755	MA4200	DIODE
D757	MA165TA5	DIODE
D758	MA165TA5	DIODE
D801	D4SB80Z	DIODE BRIDGE
D804	ERZC10DK621	DIODE
D805	232266296009	DIODE
D807	ERA22-04V3	DIODE
D809	ERA22-02V3	DIODE
D810	ERA22-08V3	DIODE
D811	TLP621GR-LF2	PHOTO COUPLER
D812	MA150TA	DIODE
D851	TVSC2408M	DIODE
D852	EU02	DIODE
D853	ERD32-02L7	DIODE
D854	TVSSR2KL	DIODE
D855	ERD32-02L7	DIODE
D1101	PN323B-LFHT	DIODE
D1205	MA165TA5	DIODE
D1206	MA165TA5	DIODE
D1207	MA165TA5	DIODE
D1208	MA165TA5 (ON M PCB)	DIODE
D1208	TVSS1WBS10 (ON E PCB)	DIODE
D1217	MA165TA5	DIODE
D1220	MA165TA5	DIODE
D1221	MA4082	DIODE
D1225	MA4082	DIODE
D1228	MA4082	DIODE
D1229	MA4082	DIODE
D1231	MA165TA5	DIODE
D1232	MA165TA5	DIODE
D1234	MA4082	DIODE
D1244	MA165TA5	DIODE
D1251	LN81RPHL	DIODE
D1253	LN526GALTV	DIODE
D1255	LN063183P5	DIODE
D1267	MA4082	DIODE
D1268	MA4082	DIODE
D1310	MA4091	DIODE
D1311	MA165TA5	DIODE
D1312	MA165TA5	DIODE
D1313	MA4091	DIODE
D1315	MA700TA5	DIODE
D2151	MA858TA5	DIODE
D2152	MA858TA5	DIODE
D2153	MA858TA5	DIODE

Ref No.	Part No.	Description	
R342	ERD25TJ101	CARBON 0.25W 5%	100Ω
R343	ERD25TJ152	CARBON 0.25W 5%	1.5KΩ
R344	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R345	ERO25CKF3001	METAL 0.25W 5% ⚠	3.00KΩ
R346	ERO25CKF3001	METAL 0.25W 5% ⚠	3.00KΩ
R349	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R351	ERG2ANJ103	METAL 2W ⚠ 5%	10KΩ
R352	ERG2ANJ103	METAL 2W ⚠ 5%	10KΩ
R353	ERG2ANJ103	METAL 2W ⚠ 5%	10KΩ
R354	ERD25TJ181	CARBON 0.25W 5%	180Ω
R355	ERD25TJ271	CARBON 0.25W 5%	270Ω
R356	ERD25TJ181	CARBON 0.25W 5%	180Ω
R357	EVN65UA00B22	GREEN DRIVE	200Ω
R358	EVN65UA00B22	RED DRIVE	200Ω
R359	ERD25TJ471	CARBON 0.25W 5%	470Ω
R360	ERD25TJ471	CARBON 0.25W 5%	470Ω
R361	ERD25TJ471	CARBON 0.25W 5%	470Ω
R362	EVN65UA00B53	GREEN CUTOFF	5KΩ
R363	EVN65UA00B53	BLUE CUTOFF	5KΩ
R364	EVN65UA00B53	RED CUTOFF	5KΩ
R365	ERDS1FJ152	CARBON 0.5W 5%	1.5KΩ
R366	ERDS1TJ152	CARBON 0.5W 5%	1.5KΩ
R367	ERDS1TJ152	CARBON 0.5W 5%	1.5KΩ
R374	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R375	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R376	ERD25TJ684	CARBON 0.25W 5%	680KΩ
R390	ERDS1TJ124	CARBON 0.5W 5%	120KΩ
R391	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R392	ERD25TJ561	CARBON 0.25W 5%	560Ω
R393	ERD25TJ561	CARBON 0.25W 5%	560Ω
R394	ERD25TJ561	CARBON 0.25W 5%	560Ω
R402	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R403	ERD25TJ184	CARBON 0.25W 5%	180KΩ
R404	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R405	EVNDXAA00B25	VERTICAL HEIGHT	200kΩ
R406	ERD25TJ564	CARBON 0.25W 5%	560KΩ
R407	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R408	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R409	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R410	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R423	ERD25TJ684	CARBON 0.25W 5%	680KΩ
R452	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R453	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R454	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R458	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R459	ERD25TJ363	CARBON 0.25W 5%	36KΩ
R461	ERD25TJ1R0	CARBON 0.25W 5%	1.0Ω
R462	ERDS1TJ1R8	CARBON 0.5W 5%	1.8Ω
R463	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R464	ERD25TJ561	CARBON 0.25W 5%	560Ω
R465	ERDS1TJ102	CARBON 0.5W 5%	1.0KΩ
R467	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R469	ERD25TJ471	CARBON 0.25W 5%	470Ω
R470	ERG2SJU391	METAL 2W ⚠ 5%	390Ω
R474	ERDS1TJ471	CARBON 0.5W 5%	470Ω
R475	ERDS1TJ152	CARBON 0.5W 5%	1.5KΩ
R476	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R477	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R478	ERD25TJ1R5	CARBON 0.25W 5%	1.5Ω
R479	ERD25TJ1R0	CARBON 0.25W 5%	1.0Ω
R484	TSF19801	FUSABLE LINK ⚠	
R502	EVNDXAA00B14	HORIZONTAL FREQUENCY	10KΩ
R503	ERO25CKF3002	METAL 0.25W 5% ⚠	30.0KΩ
R505	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R506	ERD25TJ682	CARBON 0.25W 5%	6.8KΩ
R507	EVNDXAA00B54	HORIZONTAL CENTRE	50KΩ
R508	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R511	ERD25TJ682	CARBON 0.25W 5%	6.8KΩ
R512	ERD25TJ820	CARBON 0.25W 5%	82Ω
R513	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R514	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R515	ERD25TJ471	CARBON 0.25W 5%	470Ω
R518	ERD25TJ391	CARBON 0.25W 5%	390Ω
R519	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R520	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R521	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R522	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R523	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R527	ERO25CKF8201	METAL 0.25W 5% ⚠	8.20KΩ
R528	ERO25CKF3901	METAL 0.25W 5% ⚠	3.90KΩ
R529	ERD25TJ101	CARBON 0.25W 5%	100Ω
R531	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R532	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R533	ERG2ANJ391	METAL 2W ⚠ 5%	390Ω
R534	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R535	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R536	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R537	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R538	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R542	ERD25TJ474	CARBON 0.25W 5%	470KΩ

Ref No.	Part No.	Description	
R543	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R545	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R547	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R551	ERF7ZJ100	WOUND 7W 10%	10Ω
R554	ERQ14AJ151	FILM 0.25W 5% ⚠	150Ω
R556	ERQ12HJ1R2	FILM 0.5W 5% ⚠	1.2Ω
R557	ERQ12HKR33	ILM 0.5W 10% ⚠	0.33Ω
R561	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R562	ERD25TJ124	CARBON 0.25W 5%	120KΩ
R565	ERQ1CJP102	FILM 1W 5% ⚠	1.0KΩ
R567	TSF19102	FUSABLE LINK ⚠	
R568	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R570	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R571	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R572	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R604	ERD25TJ183	CARBON 0.25W 5%	18KΩ
R606	EVNDXAA00B14	SUB COLOUR	10KΩ
R607	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R608	ERD25TJ271	CARBON 0.25W 5%	270Ω
R609	EVNDXAA00B52	DELAY LINE ADJUST	500Ω
R610	ERD25TJ391	CARBON 0.25W 5%	390Ω
R611	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R612	ERD25TJ512	CARBON 0.25W 5%	5.1KΩ
R615	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R616	ERD25TJ101	CARBON 0.25W 5%	100Ω
R617	ERD25TJ101	CARBON 0.25W 5%	100Ω
R618	ERD25TJ101	CARBON 0.25W 5%	100Ω
R619	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R620	ERD25TJ101	CARBON 0.25W 5%	100Ω
R623	ERD25TJ681	CARBON 0.25W 5%	680Ω
R624	ERD25TJ152	CARBON 0.25W 5%	1.5KΩ
R625	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R626	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R627	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R628	ERD25TJ681	CARBON 0.25W 5%	680Ω
R631	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R632	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R633	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R634	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R635	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R636	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R639	ERD25TJ105	CARBON 0.25W 5%	1.0MΩ
R643	ERD25TJ221	CARBON 0.25W 5%	220Ω
R651	ERD25TJ470	CARBON 0.25W 5%	47Ω
R652	ERD25TJ470	CARBON 0.25W 5%	47Ω
R653	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R654	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R655	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R656	ERQ14AJ4R7	FILM 0.25W 5% ⚠	4.7Ω
R657	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R658	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R660	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R674	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R675	ERD25TJ221	CARBON 0.25W 5%	220Ω
R676	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R677	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R678	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R679	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R680	ERD25TJ154	CARBON 0.25W 5%	150KΩ
R681	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R682	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R683	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R684	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R685	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R686	ERD25TJ101	CARBON 0.25W 5%	100Ω
R687	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R688	ERD25TJ821	CARBON 0.25W 5%	820Ω
R689	ERD25TJ331	CARBON 0.25W 5%	330Ω
R690	ERD25TJ681	CARBON 0.25W 5%	680Ω
R691	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R692	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R693	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R751	ERO25CKF1803	METAL 0.25W 5% ⚠	180KΩ
R752	ERO25CKF1502	METAL 0.25W 5% ⚠	15.0KΩ
R753	ERD25TJ303	CARBON 0.25W 5%	30KΩ
R754	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R756	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R757	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R758	EVNDXAA00B24	PARABOLA	20KΩ
R759	EVNDXAA00B53	WIDTH	5KΩ
R760	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R761	ERD25TJ183	CARBON 0.25W 5%	18KΩ
R762	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R764	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R766	ERD25TJ272	CARBON 0.25W 5%	2.7KΩ
R767	ERG1ANJ471	METAL 1W ⚠ 5%	470Ω
R768	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R769	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R770	ERQ12HJ220	FILM 0.5W 5% ⚠	22Ω
R771	ERD25TJ684	CARBON 0.25W 5%	680KΩ

Ref No.	Part No.	Description
Q351	2SC2923-RL	TRANSISTOR
Q352	2SC2923-RL	TRANSISTOR
Q353	2SC2923-RL	TRANSISTOR
Q365	2SC1685-TA	TRANSISTOR
Q366	2SC1685-TA	TRANSISTOR
Q367	2SC1685-TA	TRANSISTOR
Q401	2SC3311ATA	TRANSISTOR
Q501	2SD836-AL	TRANSISTOR
Q502	2SC3311ATA	TRANSISTOR
Q503	2SC3311ATA	TRANSISTOR
Q504	UN4213TA	TRANSISTOR
Q541	2SA1309ATA	TRANSISTOR
Q542	2SC3311ATA	TRANSISTOR
Q551	2SD1441-RL	TRANSISTOR
Q601	2SC3311ATA	TRANSISTOR
Q602	2SC3311ATA	TRANSISTOR
Q654	UN4213TA	TRANSISTOR
Q671	2SC3311ATA	TRANSISTOR
Q672	2SA719-TA	TRANSISTOR
Q673	2SD965-R	TRANSISTOR
Q674	2SA1309ATA	TRANSISTOR
Q675	2SC3311ATA	TRANSISTOR
Q751	2SC3311ATA	TRANSISTOR
Q752	2SA1309ATA	TRANSISTOR
Q753	2SD762-P	TRANSISTOR
Q801	2SD965-R	TRANSISTOR
Q802	2SD965-R	TRANSISTOR
Q1205	2SC1685-TA	TRANSISTOR
Q1207	UN4213TA	TRANSISTOR
Q1208	UN4215TA	TRANSISTOR
Q1209	2SC1685-TA	TRANSISTOR
Q1210	UN4215TA	TRANSISTOR
Q1211	UN4215TA	TRANSISTOR
Q1212	2SC1685-TA	TRANSISTOR
Q1220	UN411FTA	TRANSISTOR
Q1225	UN4210TA	TRANSISTOR
Q1227	UN4112TA	TRANSISTOR
Q1228	UN411FTA	TRANSISTOR
Q1230	UN4215TA	TRANSISTOR
Q1232	2SA564-S	TRANSISTOR
Q1235	2SC1685-TA	TRANSISTOR
Q1236	UN411FTA	TRANSISTOR
Q1310	2SA564-S	TRANSISTOR
Q1311	2SC1685-TA	TRANSISTOR
Q1312	2SA564-S	TRANSISTOR
Q1313	2SC1685-TA	TRANSISTOR
Q2101	BF370	TRANSISTOR
Q2103	2SC1215TA	TRANSISTOR
Q2110	2SC1215TA	TRANSISTOR
Q2151	UN4212TA	TRANSISTOR
Q2152	UN4212TA	TRANSISTOR
Q2160	UN4213TA	TRANSISTOR
Q2201	2SC1685-TA	TRANSISTOR
Q2207	UN4212TA	TRANSISTOR
Q2210	UN4211TA	TRANSISTOR
Q2401	UN4123TA	TRANSISTOR
Q2403	UN4211TA	TRANSISTOR
Q2404	UN4212TA	TRANSISTOR
Q2405	2SC1685-TA	TRANSISTOR
Q2406	UN4212TA	TRANSISTOR
Q2407	UN4212TA	TRANSISTOR
Q2408	UN4112TA	TRANSISTOR
Q2409	UN4212TA	TRANSISTOR
Q2410	UN4212TA	TRANSISTOR
Q2413	2SC1318-S	TRANSISTOR
Q2414	2SC1685-TA	TRANSISTOR
Q2415	2SC1685-TA	TRANSISTOR
Q2416	2SC1685-TA	TRANSISTOR
Q2417	2SC1685-TA	TRANSISTOR
Q2420	2SC1685-TA	TRANSISTOR
Q2421	2SC1685-TA	TRANSISTOR
Q2422	2SC1685-TA	TRANSISTOR
Q2423	2SC1685-TA	TRANSISTOR
Q2424	2SC1685-TA	TRANSISTOR
Q2426	2SC1685-TA	TRANSISTOR
Q2427	UN4212TA	TRANSISTOR
Q2428	2SC1685-TA	TRANSISTOR
Q2456	2SC1685-TA	TRANSISTOR
Q2601	2SC1685-TA	TRANSISTOR
Q2602	2SC1685-TA	TRANSISTOR
Q2604	2SA1309ATA	TRANSISTOR
Q2605	2SC1318-S	TRANSISTOR
Q2606	UN4211TA	TRANSISTOR
Q2608	UN4213TA	TRANSISTOR
Q3501	2SC1685-TA	TRANSISTOR
Q3502	2SC1685-TA	TRANSISTOR
Q3503	2SC1685-TA	TRANSISTOR
Q3504	2SC1685-TA	TRANSISTOR
Q3505	2SC1685-TA	TRANSISTOR
Q3506	2SC1685-TA	TRANSISTOR

Ref No.	Part No.	Description
Q3513	2SC1685-TA	TRANSISTOR
Q3514	2SA564-S	TRANSISTOR
Q3515	2SC1685-TA	TRANSISTOR
Q3516	2SA1309ATA	TRANSISTOR
Q3522	2SA1309ATA	TRANSISTOR

RESISTORS

R13	ERD25TJ470	CARBON 0.25W 5%	47Ω
R70	ERG1ANJ273	METAL 1W ⚠ 5%	27KΩ
R71	ERD25TJ221	CARBON 0.25W 5%	220Ω
R105	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R106	EVNDCAA03B14	I.F AGC	10KΩ
R107	ERD25TJ471	CARBON 0.25W 5%	470Ω
R108	EVNDCAA03B54	R.F.AGC	50KΩ
R110	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R111	ERD25TJ681	CARBON 0.25W 5%	680Ω
R112	ERD25TJ201	CARBON 0.25W 5%	200Ω
R113	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R114	ERD25TJ912	CARBON 0.25W 5%	9.1KΩ
R115	ERD25TJ303	CARBON 0.25W 5%	30KΩ
R116	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R117	ERD25TJ272	CARBON 0.25W 5%	2.7KΩ
R118	ERD25TJ682	CARBON 0.25W 5%	6.8KΩ
R119	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R120	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R121	ERD25TJ184	CARBON 0.25W 5%	180KΩ
R122	ERD25TJ331	CARBON 0.25W 5%	330Ω
R123	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R125	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R135	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R136	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R137	ERQ12HJ330	FILM 0.5W 5% ⚠	33Ω
R139	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R140	ERD25TJ751	CARBON 0.25W 5%	750Ω
R141	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R142	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R143	ERD25TJ271	CARBON 0.25W 5%	270Ω
R145	ERD25TJ684	CARBON 0.25W 5%	680KΩ
R151	ERD25TJ101	CARBON 0.25W 5%	100Ω
R152	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R153	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R154	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R155	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R156	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R157	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R162	ERD25TJ331	CARBON 0.25W 5%	330Ω
R171	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R177	ERD25TJ101	CARBON 0.25W 5%	100Ω
R178	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R179	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R180	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R181	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R182	ERD25TJ123	CARBON 0.25W 5%	12KΩ
R184	ERD25TJ221	CARBON 0.25W 5%	220Ω
R185	ERD25TJ221	CARBON 0.25W 5%	220Ω
R187	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R188	ERG1SJ101	METAL 1W ⚠ 5%	100Ω
R211	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R212	ERD25TJ123	CARBON 0.25W 5%	12KΩ
R213	ERD25TJ123	CARBON 0.25W 5%	12KΩ
R214	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R215	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R216	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R218	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R221	ERQ14AJ560	FILM 0.25W5% ⚠	56Ω
R245	EVUF3AM20B14	PICTURE CONTROL	10KΩ
R278	ERG1ANJ221	METAL 1W ⚠ 5%	220Ω
R279	ERG1ANJ221	METAL 1W ⚠ 5%	220Ω
R301	ERD25TJ152	CARBON 0.25W 5%	1.5KΩ
R309	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R315	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R316	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R317	EVNDXAA00B54	SUB CONTRAST	50KΩ
R319	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R321	EVNDXAA00B14	SUB BRIGHTNESS	10KΩ
R322	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R324	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R326	ERD25TJ101	CARBON 0.25W 5%	100Ω
R327	ERD25TJ121	CARBON 0.25W 5%	120Ω
R328	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R330	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R331	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R335	ERDS1TJ471	CARBON 0.5W 5%	470Ω
R336	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R337	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R338	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ

Ref No.	Part No.	Description	
R774	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R802	ERF7ZK4R7	WOUND 7W 10%	4.7Ω
R803	ERDS1TJ564	CARBON 0.5W 5%	560KΩ
R810	ERQ1CJP3R3	FILM 1W 5% ⚠	3.3Ω
R811	ERW12PKR27	WOUND 0.5W 5% ⚠	0.27Ω
R812	ERG2ANJ470	METAL 2W ⚠ 5%	47Ω
R813	ERG1ANJ683	METAL 1W ⚠ 5%	68KΩ
R814	ERD75TAJ825	CARBON 0.75W 5%	8.2MΩ
R815	ERQ12HJ5R6	FILM 0.5W 5% ⚠	5.6Ω
R816	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R817	ERDS1TJ473	CARBON 0.5W 5%	47KΩ
R818	ERD25TJ124	CARBON 0.25W 5%	120KΩ
R820	ERDS1TJ393	CARBON 0.5W 5%	39KΩ
R821	ERDS1TJ393	CARBON 0.5W 5%	39KΩ
R822	ERDS1TJ473	CARBON 0.5W 5%	47KΩ
R851	ERQ12HJ1R2	FILM 0.5W 5% ⚠	1.2Ω
R852	ERQ2CKPR47	FILM 2W 10% ⚠	0.47Ω
R854	ERQ2CKPR33	FILM 2W 10% ⚠	0.33Ω
R855	ERG3SJU180	METAL 3W ⚠ 5%	18Ω
R1101	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R1102	ERD25TJ330	CARBON 0.25W 5%	33Ω
R1103	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1104	ERD25TJ101	CARBON 0.25W 5%	100Ω
R1105	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R1201	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1202	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1203	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1204	ERD25TJ101	CARBON 0.25W 5%	100Ω
R1205	ERD25TJ101	CARBON 0.25W 5%	100Ω
R1207	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1209	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R1210	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R1211	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R1212	ERDS1TJ221	CARBON 0.5W 5%	220Ω
R1213	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1214	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1215	ERG2ANJ680	METAL 2W ⚠ 5%	68Ω
R1219	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R1221	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1222	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1223	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1224	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1225	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1226	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1227	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1229	ERD25TJ471	CARBON 0.25W 5%	470Ω
R1233	ERD25TJ105	CARBON 0.25W 5%	1.0MΩ
R1234	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1235	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1236	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R1237	ERDS1TJ121	CARBON 0.5W 5%	120Ω
R1238	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R1239	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1240	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1241	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1251	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1252	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1253	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1254	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1255	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1256	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1257	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1258	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1259	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1261	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1262	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1263	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1264	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1265	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1266	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1267	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R1269	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1270	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R1271	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R1273	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1274	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1276	ERD25TJ221	CARBON 0.25W 5%	220Ω
R1277	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1278	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R1281	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1283	TSF19631	FUSABLE LINK ⚠	
R1285	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R1286	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R1287	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R1289	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R1290	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R1291	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R1295	ERD25TJ331	CARBON 0.25W 5%	330Ω
R1303	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1310	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ

Ref No.	Part No.	Description	
R1311	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R1312	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1313	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R1314	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R1315	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1316	ERD25TJ101	CARBON 0.25W 5%	100Ω
R1317	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R1322	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2101	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2102	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2103	ERD25TJ824	CARBON 0.25W 5%	820KΩ
R2104	ERD25TJ183	CARBON 0.25W 5%	18KΩ
R2105	ERD25TJ561	CARBON 0.25W 5%	560Ω
R2106	ERD25TJ184	CARBON 0.25W 5%	180KΩ
R2110	ERD25TJ821	CARBON 0.25W 5%	820Ω
R2111	ERD25TJ470	CARBON 0.25W 5%	47Ω
R2112	ERQ14AJ330	FILM 0.25W 5% ⚠	33Ω
R2113	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2114	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2115	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2117	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2118	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2119	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2121	ERD25TJ681	CARBON 0.25W 5%	680Ω
R2122	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R2123	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R2124	ERD25TJ470	CARBON 0.25W 5%	47Ω
R2126	ERD25TJ470	CARBON 0.25W 5%	47Ω
R2128	ERD25TJ331	CARBON 0.25W 5%	330Ω
R2134	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2137	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2138	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2140	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R2141	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R2146	ERD25TJ682	CARBON 0.25W 5%	6.8KΩ
R2147	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2148	ERD25TJ331	CARBON 0.25W 5%	330Ω
R2149	ERD25TJ470	CARBON 0.25W 5%	47Ω
R2151	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2152	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R2153	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R2154	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2155	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2156	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R2157	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2158	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2159	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R2160	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2161	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2162	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2163	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2164	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2165	ERD25TJ181	CARBON 0.25W 5%	180Ω
R2166	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2167	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2168	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2169	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2172	ERD25TJ331	CARBON 0.25W 5%	330Ω
R2201	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2202	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R2203	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2204	ERD25TJ273	CARBON 0.25W 5%	27KΩ
R2205	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2206	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2207	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R2208	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2209	EVNDXAA00B52	STEREO ADJUST	500Ω
R2210	EVNDXAA00B32	BILINGUAL ADJUST	300Ω
R2211	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2212	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R2213	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2214	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2215	ERD25TJ824	CARBON 0.25W 5%	820KΩ
R2220	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2221	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2224	EVNDXAA00B54	SEPARATION ADJUST	50KΩ
R2225	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2226	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2227	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2228	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2230	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2231	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R2232	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R2235	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2236	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2237	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2240	ERQ14AJ330	FILM 0.25W 5% ⚠	33Ω
R2241	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2243	ERD25TJ271	CARBON 0.25W 5%	270Ω
R2247	ERD25TJ271	CARBON 0.25W 5%	270Ω

Ref No.	Part No.	Description	
R2256	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2257	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2258	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2259	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R2260	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R2261	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2262	ERQ14AJ100	FILM 0.25W 5% ⚠	10Ω
R2263	ERD25TJ682	CARBON 0.25W 5%	6.8KΩ
R2264	ERQ12HJ470	FILM 0.5W 5% ⚠	47Ω
R2265	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2266	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R2268	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2269	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2270	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R2271	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2272	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2273	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2301	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2305	ERD25TJ183	CARBON 0.25W 5%	18KΩ
R2306	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2307	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2308	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2310	ERD25TJ123	CARBON 0.25W 5%	12KΩ
R2312	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2313	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2314	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2315	ERD25TJ123	CARBON 0.25W 5%	12KΩ
R2316	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2317	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2318	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2319	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2320	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2321	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2324	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2351	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2352	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2353	ERD25TJ331	CARBON 0.25W 5%	330Ω
R2354	ERD25TJ101	CARBON 0.25W 5%	100Ω
	(On H PCB)		
R2354	ERD25TJ331	CARBON 0.25W 5%	330Ω
	(On K PCB)		
R2355	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2356	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2357	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2358	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2359	ERQ14AJ4R7	FILM 0.25W 5% ⚠	4.7Ω
R2360	ERQ14AJ4R7	FILM 0.25W 5% ⚠	4.7Ω
R2361	ERD25TJ274	CARBON 0.25W 5%	270KΩ
R2362	ERD25TJ913	CARBON 0.25W 5%	91KΩ
R2363	ERQ14AJ101	FILM 0.25W 5% ⚠	100Ω
R2364	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2365	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R2366	ERF10ZK4R7	WOUND 10W 10%	4.7Ω
R2367	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2368	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R2369	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2370	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R2401	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2402	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2403	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2408	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2418	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2419	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2420	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2421	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2422	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2423	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2424	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2425	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2426	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2427	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2428	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2429	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2430	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2431	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2432	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2433	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2434	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2435	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2436	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2437	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2438	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2439	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2440	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2441	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2442	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2443	ERD25TJ563	CARBON 0.25W 5%	56KΩ
R2444	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2446	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2447	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ

Ref No.	Part No.	Description	
R2448	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2449	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2450	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2451	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R2452	ERQ12HJ4R7	FILM 0.5W 5% ⚠	4.7Ω
R2453	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2454	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2456	ERD25TJ393	CARBON 0.25W 5%	39KΩ
R2457	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2458	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2459	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2460	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2461	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2462	ERD25TJ562	CARBON 0.25W 5%	5.6KΩ
R2463	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2464	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2465	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2466	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2467	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2468	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2469	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2470	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2471	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2472	ERD25TJ474	CARBON 0.25W 5%	470KΩ
R2477	ERD25TJ224	CARBON 0.25W 5%	220KΩ
R2478	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2479	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2480	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2481	ERD2FCG100P	CARBON 2%	10Ω
R2482	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2483	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2484	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2485	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2486	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2487	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2488	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2489	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2490	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2491	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2492	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2493	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2494	ERD25TJ680	CARBON 0.25W 5%	68Ω
R2495	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R2602	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2603	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2604	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2605	ERD25TJ104	CARBON 0.25W 5%	100KΩ
R2606	ERD25TJ221	CARBON 0.25W 5%	220Ω
R2608	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2610	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2612	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2613	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2614	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2620	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2621	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2623	ERD25TJ681	CARBON 0.25W 5%	680Ω
R2625	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2627	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2628	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R2629	ERD25TJ391	CARBON 0.25W 5%	390Ω
R2631	ERD25TJ101	CARBON 0.25W 5%	100Ω
R2632	ERD25TJ750	CARBON 0.25W 5%	75Ω
R2633	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R2634	ERQ12HJ8R2	FILM 0.5W 5% ⚠	8.2Ω
R2635	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2636	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R2638	ERD25TJ222	CARBON 0.25W 5%	2.2KΩ
R2640	ERD25TJ471	CARBON 0.25W 5%	470Ω
R2641	ERD25TJ333	CARBON 0.25W 5%	33KΩ
R2656	ERD25TJ680	CARBON 0.25W 5%	68Ω
R2660	ERD25TJ152	CARBON 0.25W 5%	1.5KΩ
R2662	ERD25TJ152	CARBON 0.25W 5%	1.5KΩ
R2663	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2664	ERD25TJ223	CARBON 0.25W 5%	22KΩ
R2665	ERD25TJ182	CARBON 0.25W 5%	1.8KΩ
R2666	ERD25TJ684	CARBON 0.25W 5%	680KΩ
R2667	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R3501	ERD25TJ221	CARBON 0.25W 5%	220Ω
R3502	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R3503	ERD25TJ471	CARBON 0.25W 5%	470Ω
R3504	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R3505	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3506	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R3507	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3508	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R3509	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R3510	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3511	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3512	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R3513	ERD25TJ223	CARBON 0.25W 5%	22KΩ

Ref No.	Part No.	Description	
R3514	EVNDCAA03B24	TELETEXT CONTRAST	20KΩ
R3515	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R3516	ERD25TJ153	CARBON 0.25W 5%	15KΩ
R3517	ERD25TJ220	CARBON 0.25W 5%	22Ω
R3519	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R3520	ERD25TJ821	CARBON 0.25W 5%	820Ω
R3522	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R3523	ERD25TJ471	CARBON 0.25W 5%	470Ω
R3524	ERD25TJ683	CARBON 0.25W 5%	68KΩ
R3525	ERD25TJ331	CARBON 0.25W 5%	330Ω
R3526	ERDS1TJ1R0	CARBON 0.5W 5%	1.0Ω
R3532	ERD25TJ332	CARBON 0.25W 5%	3.3KΩ
R3533	ERD25TJ331	CARBON 0.25W 5%	330Ω
R3534	ERD25TJ750	CARBON 0.25W 5%	75Ω
R3535	ERD25TJ750	CARBON 0.25W 5%	75Ω
R3536	ERD25TJ750	CARBON 0.25W 5%	75Ω
R3541	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3542	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3552	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3558	ERD25TJ471	CARBON 0.25W 5%	470Ω
R3559	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3560	ERD25TJ561	CARBON 0.25W 5%	560Ω
R3561	ERD25TJ392	CARBON 0.25W 5%	3.9KΩ
R3562	ERD25TJ122	CARBON 0.25W 5%	1.2KΩ
R3563	ERD25TJ753	CARBON 0.25W 5%	75KΩ
R3564	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R3565	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R3566	ERD25TJ823	CARBON 0.25W 5%	82KΩ
R3567	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R3568	ERD25TJ822	CARBON 0.25W 5%	8.2KΩ
R3582	ERD25TJ103	CARBON 0.25W 5%	10KΩ
R3590	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3591	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3592	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3593	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3594	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R3595	ERD25TJ473	CARBON 0.25W 5%	47KΩ
R3596	ERD25TJ472	CARBON 0.25W 5%	4.7KΩ
R3598	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3599	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3601	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3603	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3604	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3607	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3609	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3610	ERD25TJ101	CARBON 0.25W 5%	100Ω
R3612	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3613	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3614	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3619	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3621	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3623	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ
R3624	ERD25TJ102	CARBON 0.25W 5%	1.0KΩ

Ref No.	Part No.	Description

SWITCHES

S251	ESD2760	SWITCH
S301	EVQR1AL13	SWITCH
S801	ESB99267S	SWITCH
S1201	EVQQSC11G	SWITCH
S1207	EVQQSC13K	SWITCH
S1208	EVQQSC13K	SWITCH
S1209	EVQQSC11G	SWITCH
S1213	EVQQSC13K	SWITCH
S1215	EVQQSC11G	SWITCH
S1218	EVQQSC13K	SWITCH
S1220	EVQQSC13K	SWITCH
S1222	EVQQSC13K	SWITCH
S1223	EVQQSC11G	SWITCH
S1228	EVQQSC11G	SWITCH
S1229	ESB64605	SWITCH
S1230	ESB64605	SWITCH
S1231	EVQQSC13K	SWITCH
S1232	EVQQSC13K	SWITCH
S1233	EVQQSC13K	SWITCH
S1234	EVQQSC13K	SWITCH
S1235	EVQQSC13K	SWITCH
S1236	EVQQSC13K	SWITCH

TRANSFORMERS

T531	ETH19Y53AY	TRANSFORMER
T551	TLF15542F	TRANSFORMER
T801	ETS49K422A	TRANSFORMER
T1201	ETP35KE65E	TRANSFORMER

FILTERS

X101	SW174A	FILTER
X102	EFOA500KS5A	FILTER
X103	EFCS5R5MW3	FILTER
X104	EFCA6R5MB3	FILTER
X105	EFCS6R0MW3	FILTER
X171	TSS120M2	CRYSTAL
X601	TSS2003-M	CRYSTAL
X671	TLK66056-1	TRANSFORMER
X1201	TSS2077-M	CRYSTAL
X2101	EFCS5R5MS3	FILTER
X2102	EFCS5R5MS4	FILTER
X2103	EFCS5R74MS4A	FILTER
X2104	EFCS5R74MS4A	FILTER
X2105	EFCS6R0MS4	FILTER
X2106	TFCH389VK09	FILTER
X2107	EFCS6R0MS4	FILTER
X2108	EFCA6R0MB3	FILTER
X2151	TFCH324SK02	FILTER
X3501	TSS2004-M	CRYSTAL
X3504	TFOA6R0M02A2	CRYSTAL
X3505	TSS2080-MX	CRYSTAL